UNIVERSITY OF ILLINOIS
Agricultural Experiment Station.

BULLETIN NO. 78.

MARKET CLASSES AND GRADES OF CATTLE WITH SUGGESTIONS FOR INTERPRETING MARKET QUOTATIONS.

SECOND EDITION, JULY, 1904.

By HERBERT W. MUMFORD.

URBANA, ILLINOIS, JULY, 1904.

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By HERBERT W. MUMFORD, B. S., Professor of Animal Husbandry, College of Agriculture, and Chief in Animal Husbandry, Agricultural Experiment Station.

SUMMARY.

1. Learn to distinguish between a market class and a market grade. Speaking generally, the market classes of beef cattle are Beef, Butcher Stock, Cutters and Canners, Veal Calves, and Stockers and Feeders. The grades are prime, choice, good, medium, common, and inferior.

2. The names of the various classes indicate the uses to which cattle in those classes are put. The grades refer to quality, condition, and conformation, the relative importance of which factors, so far as they influence market values, is indicated by the order in which they have been enumerated, quality being of greatest importance, condition next, and conformation of least importance.

3. Weight has relatively but small influence in determining the grade and price of fat cattle. Quality and condition largely govern both.

4. As a basis for comparison and study of other grades, become thoroughly familiar with the characteristics of prime steers and choice feeders; these are the standard grades of fat cattle and feeders.

5. It is, therefore, more difficult to determine an approximately correct valuation for a lot of low-grade cattle than for cattle of higher grades.

6. When practicable follow your consignments to the market—find out the desirable and undesirable characteristics of your cattle from the standpoint of the market.

7. Observe other cattle on the market and compare their quality, condition, conformation, and the prices paid for them with the quality, condition, conformation, and price of your own cattle with which you are more familiar.

8. Compare prices for which various lots of cattle have been sold with market quotations, and note what grade of cattle is bringing similar prices.

9. The terms export, shipping, and dressed beef steers are no longer significant of any particular grade of cattle. Several different grades and even different classes are exported, shipped, and used for dressed beef.

10. The most desirable steer for export, for shipping, and for the best grade of dressed beef either for domestic or foreign trade is the same in each instance.

11. The best grade of any class of cattle must be practically above criticism.

12. When cattle grade the best of their class they command a premium on the market. Such cattle usually sell at strong prices and for their full value.

13. Cattle of the lower grades, necessarily deficient in certain particulars, sell at a discount, which in many instances is greater than their inferiority demands.

14. Thus it will be seen that the tendency is to spring the market for choice, prime, and fancy grades, while the common and medium grades are seldom, if ever, sold for more than they are worth, and many times they do not bring their full value owing to a tendency on the part of buyers to magnify defects of minor importance.

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IMPORTANCE OF MARKET CLASSIFICATIONS.

Variations in quality, condition, weight, and age of cattle reaching the Chicago market make it necessary to establish certain classes and grades in order to report market conditions intelligibly through the public press. While the limits and characteristics of these classes and grades are somewhat variable owing to fluctuations in the supply and the demand, they are still distinct enough to permit of classification and definition.

It is evident that the value of a thorough knowledge of the various market grades of cattle is not fully appreciated by a majority of the feeders and breeders of beef cattle. Without a thorough understanding of market and feed lot requirements the feeder is groping in the dark. If he secures a profit it is more the result of an accident than of a definitely determined and intelligently executed plan. Such guesswork is more often followed by loss than by profit.

Those most familiar with the cattle trade agree that wide differences often exist between the actual selling price of cattle in the market and the previous estimate by the feeders sending them forward as to the prices they should bring. The small feeder, who seldom follows his cattle to market, has a poor chance to learn market conditions and requirements, but the regular shipper has an excellent opportunity to do so. Feeders must rely largely upon the market reports for their knowledge of the condition of the cattle trade. Market reports will always be more intelligible to readers who are thoroughly familiar with stockyards vernacular than to those who seldom visit them; hence, the desirability of frequent visits to the market. Inability on the part of the feeder to interpret correctly market quotations places him at a decided disadvantage either in selling his cattle to a shipper or in shipping to the open market. The hope that this bulletin will aid cattle feeders and also those without experience about to engage in the business of breeding or feeding beef cattle on an extensive scale inspired this attempt to classify and explain the various market classes and grades of cattle.

It might appear on first thought that a knowledge of market requirements and the conditions that govern them would be of little interest and of still less importance to the breeder of pedigreed beef cattle. Unless the breeder of registered beef cattle is fortified with such information, however, he is too apt to breed without attaching sufficient importance to the fact that the only reason for the existence of the improved breeds of beef cattle is that they facilitate the economical production of beef of high quality. The first lesson for the breeder of registered beef cattle should be to familiarize himself thoroughly with the demands of the fat cattle market. It is needless to say that very many breeders have almost entirely overlooked this fundamental considera-

tion. They are breeding Shorthorns, Aberdeen Angus, Galloways, or Herefords because they are Shorthorns, Aberdeen Angus, Galloways, or Herefords and not because they see in these cattle especial fitness for the economical production of beef of high quality. In other words, many lose sight of market requirements.

The breeder of registered beef cattle who long overlooks the ability of his stock to produce animals that will meet the requirements of the open market will find his trade gradually, but surely, slipping away, for the successful breeder of the future will be obliged to meet the demands of a more intelligent public. Beef producers in general wanting registered bulls of some one of the breeds of beef cattle are rapidly acquiring a more critical knowledge of their business, and they keenly appreciate a thoroughly good animal; while the inferior animal, pure bred though he may be, no longer receives serious consideration. Never before in the history of improved breeds of beef cattle have so many breeders turned their attention to a study of market and feed lot requirements as a basis for their breeding operations.

It is hoped that this bulletin will demonstrate the importance of this subject in a way that will influence many to make a careful study of market conditions and lead all to look upon a study of the market as of great importance in the production of meats generally; for what is true of the beef cattle market is also true to a large extent of the sheep and hog markets.

The task undertaken is not an easy one. Some of the perplexities are: First, the somewhat variable nature of the different classes and grades due to variations in quality, condition, and visible supply of cattle, and the activity in the dressed beef trade; second, the difficulty of accurately describing animals typical of the various grades; third, the difficulty of securing photographs of average types representing the market grades; and fourth, a lack of uniformity in the classification of the various market grades of cattle and in the use of terms by those intrusted with selling, buying, and reporting the cattle market. Different agricultural journals have different ways of reporting the market, while the same terms are not uniformly used in the same report in referring to the same grades of cattle. In the interest of a more intelligent interpretation of market quotations a fairly uniform classification should prevail in reporting the cattle market. Agricultural journals everywhere will gladly co-operate in bringing about such a condition and all interested in the cattle trade will appreciate approved corrections.

This bulletin is the result of an investigation of the subject by the author at the Union Stock Yards, Chicago, where every opportunity was afforded and every possible courtesy extended by the officials of the Union Stock Yards and Transit Company, Live Stock Commission Companies, and by representatives of the Live Stock Journals. Forty-five

of the engravings used in illustrating this bulletin were made from photographs taken in the Chicago Union Stock Yards, forty of which were taken especially for use in this work.

Cattle are handled in the Chicago market according to the following classes, grades of which are subsequently fully described:

MARKET CLASSES.

Beef Cattle. This class includes export, shipping, and dressed beef steers.

Texas and Western Range Cattle. In reality this is a subclass of beef cattle; it includes all grades of Texas cattle and branded cattle from the western ranges. Such grades are very similar to the standard grades of beef cattle.

Butcher Stock. This class includes the better grades of heifers, cows, and bulls, and common and inferior steers. Butcher stock is made up largely of cows and heifers.

Cutters and Canners. This class includes thin cows and bulls, and inferior steers and heifers. In fact, anything of a low, inferior grade may be classed as cutters or canners.

Stockers and Feeders. This class includes calves, yearlings, two-year-olds, and older cattle. It may include steers, heifers, or bulls.

Veal Calves. This class includes all grades of veal calves.

Milkers and Springers. As cows classed as Milkers and Springers are intended for neither slaughter nor further feeding for beef production, they will not be considered in this bulletin. It should be said in passing, however, that many cows shipped to the market as milkers, or springers, not too far advanced in pregnancy, are sold in the market as butcher stock or as cutters for more money than they would have brought as milk cows. The use to which an animal is put after being sold in the market is of no interest or importance to the shipper or the firm to which he consigns his stock. If, therefore, a milker or springer will net more to the shipper sold as a beef cow, it is in line with good business practice so to dispose of her, for in so doing the commission firm satisfies the shipper.

Within these classes cattle are graded according to quality, condition and weight. The first division of the cattle market is usually headed "Native Beef Cattle," or more commonly with simply:

BEEF CATTLE.

Under this head are quoted all grades of fat steers and heifers that have received sufficient food to show that a fairly successful attempt has been made to fatten them. This class includes everything from prime steers to the common rough grade of steers. It includes every-

thing from the heaviest shipping steers to the lightest grades of dressed beef, export, and shipping steers.

It is condition and quality rather than weight that decide whether a steer or heifer would be included in the "Beef Cattle" classification. Thus we can understand how an 800 pound yearling possessing quality and finish might more consistently fall under this head than a heavier, plainer steer lacking either quality or condition, or both. Fat steers and heifers are in demand in the Chicago market by three classes of buyers, viz., exporters for the British market, packers for dressed beef slaughtered in Chicago, and eastern buyers to ship for slaughter to Boston, New York, Philadelphia, Pittsburg, Baltimore, Cleveland, Albany, Detroit, and many smaller cities. The packing houses use by far the largest number, say from fifty to sixty percent, while exporters and shippers buying for out-of-town slaughter divide the remainder about equally between them. No statement can be made, however, as to the relative number used either for export, dressed beef, or out-of-town slaughter, that will be correct for any great length of time. This depends largely upon the supply and the quality of the offerings, and to a considerable extent upon the demand for beeves, both for domestic use and for export.

Changes in the cattle market, that is, as to weight, quality, and condition demanded by certain branches of the trade, seem to have been overlooked by many in reporting the cattle market. This is especially true in regard to the export trade. At present there are such wide variations in weight, quality, and condition of cattle used for export, shipping, and dressed beef that the terms "export steers," "shipping steers," and "dressed beef steers" no longer stand for distinct and clearly defined types or grades of cattle. We can not, therefore, consistently use these terms in an ideal classification of the market grades of fat cattle. The existence of these facts leads to the conclusion that it is wise not to attempt to interpret existing market quotations, but to arrange a classification which will meet the requirements of the present cattle trade, and explain fully the same so that all can understand even if somewhat unfamiliar with market conditions and requirements.

Since it is quality and condition that most regulate price, it would seem that these should be made the basis for grading cattle. With such a basis for classification one would expect to find a wide range in weight in the different grades of cattle, while variations in quality and condition within such grades would be relatively narrow. The most desirable steers for export, those required by packers to furnish the best grades of beef, and the better grades of shipping steers are very similar in character.

It often occurs that a man tops the market for the day with rather a plain lot of cattle. It also frequently happens that a load of steers

of prime quality does not bring the top price. In the former case there was, doubtless, not a prime steer on the market, a condition not at all improbable; and in the latter instance it is certain there was a liberal supply of prime steers, in which case the market-topping load would not only have to be prime, but fancy. Prime steers, then, not market toppers, should be our standard of excellence.

The following grades include the bulk of shipments that would be classed as beef cattle:

Prime steers	1200 to 1600 lb.
Choice steers	1150 to 1600 lb.
Good steers	1150 to 1600 lb.
Medium steers	1100 to 1400 lb.
Common rough steers	900 to 1200 lb.

The terms, *prime, choice, good, medium,* and *common,* refer to the quality and condition of cattle in the market, all or part of which may properly be used to indicate grades within any class of cattle.

PRIME STEERS.

When the word prime is used to designate the quality and condition of cattle, we should understand it is the very best grade of the class, unless possibly we were to except a few fancy cattle of show-yard merit that occasionally reach the market. Prime steers are taken largely by buyers for the eastern markets and by packers for the dressed beef trade, the former taking the bulk of such cattle. Such steers are practically above criticism both as to quality and condition.

A moment's reflection will convince the reader that the omission of "extra" from the name for the best grade of fat steers is justified since it adds nothing to the meaning of the term "prime." It will undoubtedly be noted that the grades, "choice corn-fed yearlings," and "good corn-fed yearlings," have also been dropped. In general, choice corn-fed and good corn-fed yearlings sell as well as older and heavier cattle of the same grades. The fact is, most so-called yearlings are two-year-olds. They sell especially well during the months of April, May, and June, and for home (not export) holiday trade. At other seasons the seller may expect a slightly lower price than could be secured for heavier cattle of the same grade.

The prime steer should present conclusive evidence to sight and touch that he possesses to a high degree the form, condition, and quality demanded by the dealer in high class beef.

I. *Form.*—The butcher demands not so much that parallelogrammic form popularly spoken of by many authorities, as he does a high state of development in loin, crops, back, thighs, twist, and rump. He demands development in these regions because they are the parts from which are secured the high-priced cuts. The animal should show plenty

of depth and breadth, furnishing a large surface for flesh, without that tendency to be paunchy which is objectionable to the butcher. He seeks also, smooth, well-rounded general outlines which indicate both thickness and evenness of flesh and an absence of a tendency to be rough and coarse, which would mean loss to him, since the waste in the dressing of a rough, coarse beast would be out of proportion with the weight of marketable beef. Then, too, the butcher is not unmindful of the fact that having secured satisfactory development of the parts from which are taken the high-priced cuts, there is an added value in securing thick, even flesh throughout, on the cheaper as well as on the more valuable parts of the carcass.

To the untrained eye an unusual development of loin, crops, and thighs would detract from the beauty, style, and gracefulness of the beast. To the butcher such development would increase rather than lessen its value. It should be clearly borne in mind, therefore, that no beauty of outline, style, or gracefulness of carriage will ever take precedence of proper development in the most important and valuable parts of the bullock. We should not assume, however, that the highest development in these most valuable parts is incompatible with ideal beef form; the truth of the matter is, we seldom get high development in the parts from which are taken the high-priced cuts except in animals which are symmetrically developed. It is entirely consistent and desirable, therefore, that we hold up as our ideal standard of the prime steer a combination of well-developed parts from which are taken the high-priced cuts, and a uniformly high development in all parts capable of taking on flesh which gives to the animal symmetry and smoothness of outline, that style and that beauty otherwise impossible. Correct conformation and prime condition must accompany each other in order to secure a high percentage of dressed beef.

II. *Quality and Condition.*—Quality may be considered as (1) general quality, and (2) quality of flesh and condition of animal.

(1) General quality. General quality in a fat steer is indicated by a medium sized, fine, clean cut, breedy featured head, bearing ears of moderate size and texture; short legs, with clean, fine bone; a fine, nicely tapering tail; fine hair; a pliable skin of medium thickness, and smooth, well-rounded outlines.

(2) Quality of flesh and condition of animal. The quality of beef depends largely upon the condition of the animal. By condition we refer to the degree of fatness of a bullock. It should not be assumed, however, that the highest quality of beef is found in the fattest beast. There are three principal reasons for fattening a steer: (a) In order that when dressed there will not be a high percentage of offal and other waste, as a fat animal, other things being equal, will dress a higher percentage of carcass than a half fat or a thin one, and furthermore, in the fat animal

the proportion of those parts which from their very nature are unsalable is reduced to the minimum; (b) In order that the flesh or lean meat shall be rendered more tender, juicy, and of better flavor by the deposition of fat throughout its substance; (c) In order to permit of proper ripening of the meat, as a thin carcass, being full of moisture and lacking the protection of a covering of fat, will rot before it will ripen.

The possibility of securing the highest quality in beef is influenced by the breeding and general quality of the animal. Methods both of growing and fattening the beast also influence the quality of its flesh. There is, too, a quality of flesh which is peculiar to the individual and

which is independent both of breeding and methods of feeding. Desirable quality in flesh is indicated by a firm yet mellow and springy consistency of the flesh at the crops, along the back, at the loins, and even on the sides, beneath the gentle pressure of the outstretched hand. Good quality of flesh is indicated in the fat steer by the absence of ties and rolls, or patches of gaudy, flabby fat.

A tendency to lay on fat in bunches and to roll at the loin indicates that the fat has been deposited in large masses and has not been so evenly distributed throughout the animal as to give to the flesh that marbled character so necessary to the highest quality in beef. An animal without a tendency to lay on fat unevenly may become bunchy about the tailhead and show other indications of a lack of a well marbled condition of the flesh simply by being carried to the point of excessive fatness.

Undoubtedly, outstanding coarseness and lack of general quality

in the live animal are inseparably linked with undesirable texture in the beef cut from such a beast. Fullness at base of tongue, fullness or a roll of fat in front of point of shoulder, a full twist, a large mellow cod, a low, full, thick flank that stands out and rolls visibly as the animal walks, fullness and smoothness at rump and tailhead indicate that degree of fatness which is essential to the highest quality in beef. These points which are to be judged by sight rather than by touch are the ones most depended upon by buyers at the yards. If a close examination is desirable and possible we find that when the ends of the fingers are gently pressed into the flesh on the side of the beast in an effort to find the ribs,

PLATE I. PRIME STEERS.

there should be a firmness of flesh that does not admit of freely and easily forcing the fingers to or between them. A lack of firmness indicates the presence of too large a proportion of fat, which may be due either to a too fat or overdone condition of the animal or to an inherent lack of flesh, either of which is decidedly undesirable. A proper degree of firmness shows the presence of plenty of flesh or lean meat. Such an examination reveals the quality of the surface flesh, but cannot always be relied upon to determine the quality of the beef throughout the carcass.

It sometimes occurs that a steer may cut too fat on the block and yet not have exhibited on foot bunchiness or other indications of an overdone condition. Animals which are carried to an extreme degree of fatness as is seen in some show animals, and occasionally among market animals, give evidence of an overdone condition, being very soft in flesh, a condition which often passes into a very hard unyielding one.

It sometimes happens, too, that certain individual animals become hard in the surface fat without ever having shown by softness of their flesh that they were approaching an overdone condition. There is such a thing, however, as an animal becoming too firm in the flesh, and such firmness indicating an overdone condition.

Prime steers weighing from 1,200 to 1,400 pounds are wanted by shippers, by packers, and by exporters. The demand for steers of these weights of good, choice, and medium quality is greater than for steers of any other weight; hence the market is least likely to be overstocked with these grades, and especially is this true with the steers of choice and prime quality.

An animal characteristically deficient in form, quality, or condition is disqualified to meet the full demands of the dealer in high-class beef, and consequently is not to be considered as a prime steer. Whether a lack of quality or a lack of condition is more evident in the cattle seen at the Union Stock Yards, Chicago, depends largely upon the prevailing prices for foodstuffs and the prices for cattle on foot. When high prices for foodstuffs have prevailed for some time and when market prices for cattle have been ruling high, the tendency among feeders is to send their cattle to market in a half-fat condition in order to take advantage of the prevailing high prices and avoid feeding too much high-priced foodstuffs, in which case many cattle would lack condition rather than quality. See Plate 1.

CHOICE STEERS.

If a steer is not quite right, either as to quality or condition, but still possesses to a marked degree the characteristics most sought by packers, shippers, and exporters, he is called a choice steer. To be choice, a steer cannot be much short of prime either as to quality or condition; in other words, it takes outstanding quality and condition in a bullock to grade as choice. As the term indicates, he is choice, yet falls short of the finish and quality characteristic of a prime bullock. A few prime or choice heifers in loads with steers of the same grade often sell with the steers at a uniform price. See Plate 2.

GOOD STEERS.

Good fat steers may be of very good quality, but noticeably lacking in condition or in finish; they may be finished or in prime condition, yet lacking in quality; or they may be noticeably deficient in both quality and condition, but still good enough to be above the average grade of fat cattle reaching the market. By far the largest number of steers belonging to the good grade may be spoken of as being a little on the coarse order; they are quite fat and of good weight, but rather plain. See Plate 4.

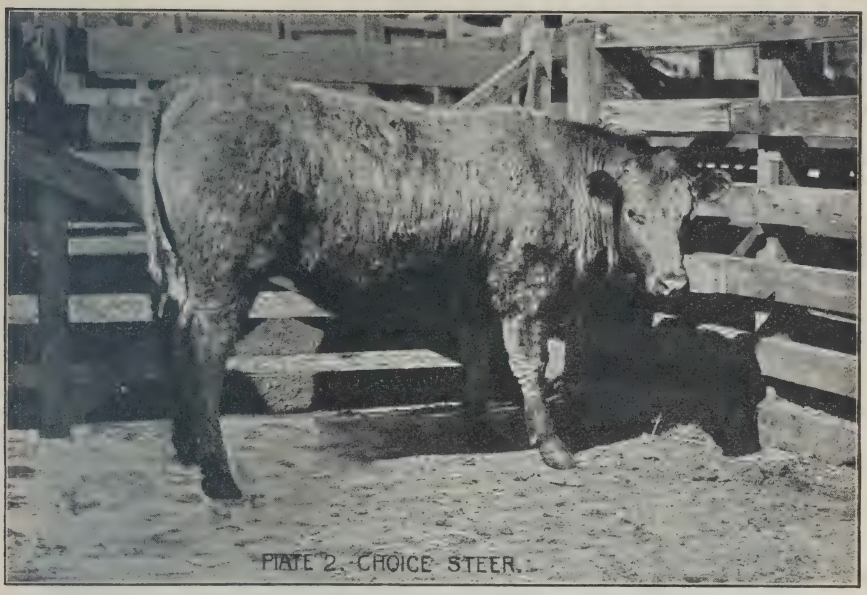

PLATE 2.—CHOICE STEER.

PLATE 3.—COMMON ROUGH STEER.

PLATE 4. GOOD STEERS.

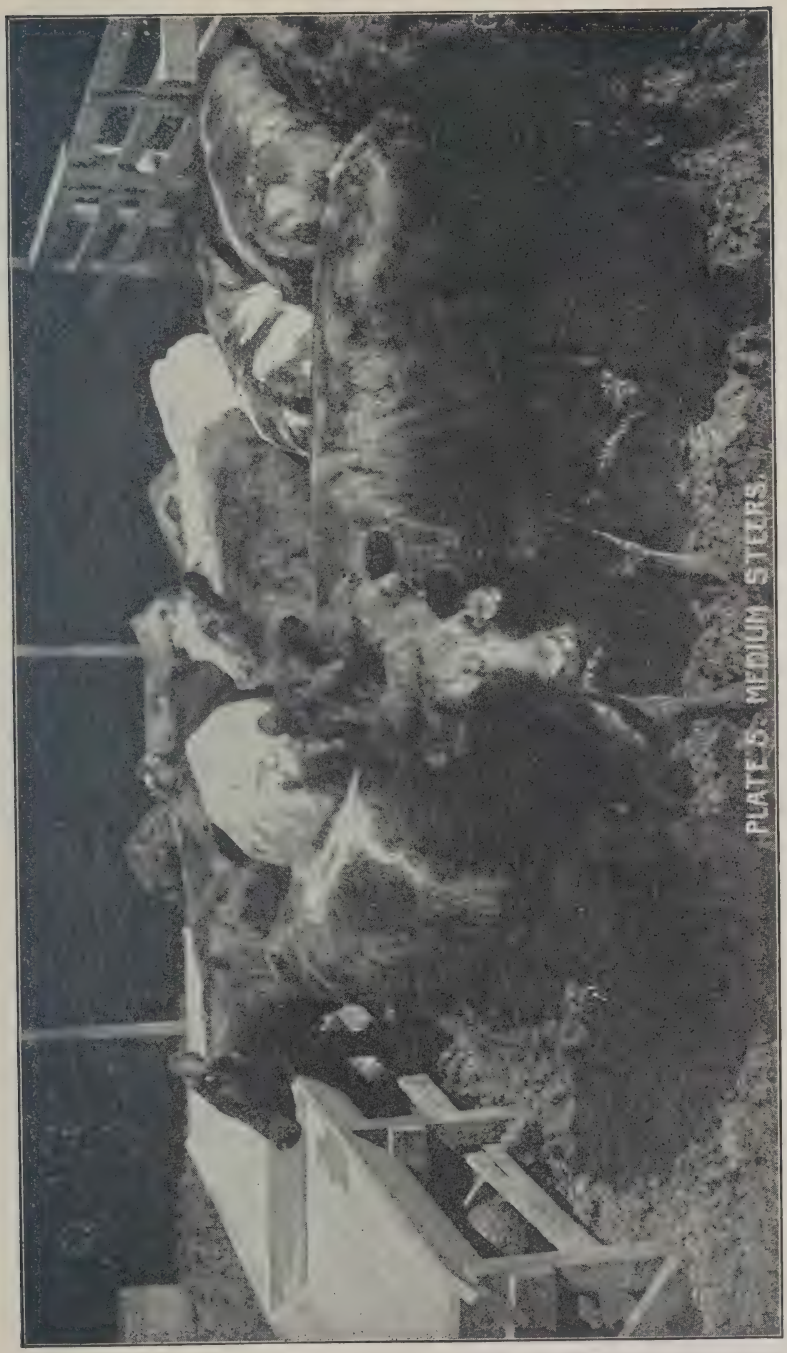
PLATE 6. MEDIUM STEERS.

MEDIUM STEERS.

Steers of the medium grade are of about average quality and condition lacking to a marked degree that finish and quality demanded in a prime steer. Steers of this grade are usually of light weight. Medium steers are generally too paunchy and too lacking in condition and quality to dress a high percentage of beef or show a good proportion of fat. The beef from such steers is not good enough to meet the demands of dealers in beef of the best quality, nor is the proportion of the high-priced cuts large; hence, packers, shippers, and exporters cannot afford to pay the prices prevailing for prime, choice, and good steers. See Plate 5.

COMMON ROUGH STEERS.

It would seem more consistent to class Common Rough Steers as Butcher Stock, and they often are, although not invariably, so classed. A great many common, rough fat cattle are bought by packers and by shippers for Pittsburg, Allegheny, Cleveland, Baltimore, and other markets. Such cattle are often called "pluggy" in the market, weighing from 900 to 1,200 pounds. They lack both that quality and condition which characterize the better grades of fat cattle, being especially deficient in quality. As is indicated by the name of the grade, they are rough and coarse. They are not capable of taking on a high, smooth finish like steers of good quailty. See Plate 3.

Fat heifers and cows may belong to any one of the above grades, but unless of the prime, choice, or good grades they would always be classed as butcher stock; and even the prime, choice, or good grades of heifers would be so classed except in cases where shipped to the market in loads containing a relatively much larger number of steers.

Spayed heifers usually command a price from within twenty-five to fifty cents per hundred weight of as much as steers of equal quality and condition. The discrimination against open heifers is still greater because of the possibility of their lacking condition, the danger of their being pregnant, or of dressing out dark in the flesh if slaughtered when in heat. Heifers are used mainly by Chicago packers for dressed beef, although a small percentage of the best heifers are used for export. Heifers as a rule run too light in weight to warrant the expense of shipment. Except as noted above, cows and bulls of whatever grade are classed as butcher stock.

SHIPPING, EXPORT, AND DRESSED BEEF CATTLE.

These three terms are frequently understood to mean definite classes of cattle. Such is not the case. They refer rather to the three principal uses made of cattle sold in the markets for beef, and include several classes and many different grades.

Before taking up the butcher stock class, it may be well to give the reader an idea of the classes and grades of cattle which are exported, those used for shipping for out-of-town slaughter, and those used for local slaughter, commonly spoken of as dressed beef steers.

EXPORT CATTLE.

The bulk of cattle exported belong to the good and choice grades of steers and weigh from 1,200 to 1,500 pounds. As compared with the total number of beef animals exported, comparatively few prime steers are bought for export. Their relatively high price in our markets is prohibitive, or at any rate renders their exportation less profitable than that of the good and choice grades. For the Christmas market there is an active demand for a limited number of prime steers of strong weights, say about 1,500 pounds. At other seasons the lighter weights, from 1,200 to 1,400 pounds, are preferred. While 1,200 pound steers are a trifle light in weight to meet the demand of exporters, they are often taken in preference to steers weighing 1,500 pounds or more, provided, of course, their quality and condition are satisfactory. If a weight were to be fixed upon as being the most desirable for export at the present time, it would be 1,350 pounds. Exporters neither buy the best nor yet the cheapest grade of fat cattle.

It is not at all strange that we have come to look upon export steers as among the best of our fat cattle, for they are generally above the average grade. It is an entirely erroneous impression, however, and one that has become quite general among beef producers, that nearly all of our prime steers are exported, leaving the cheaper grades for home consumption, and that none other than prime steers are exported. Cattle bought for the London trade are invariably of a better quality and finish, as well as of heavier weights than those purchased for the Liverpool and Glasgow markets, the latter take a cheaper, plainer grade. The London market gets about a shipload of good to choice steers from the United States every week.

SHIPPING STEERS.

The bulk of the shipping steers are made up of the medium and good grades of cattle, ranging in weight from 1,150 to 1,600 pounds, although buyers for the eastern trade are always on the market for choice and prime steers; those from Boston giving the preference in their purchases to the heavier consignments; that is, steers weighing from 1,500 to 1,600 pounds. Steers of such weight possessing high quality and finish are eagerly sought by shippers and command "good, strong prices," unless in too liberal supply, as sometimes happens during seasons when corn and other food stuffs are cheap. Not a very large number of such steers is wanted, as eastern buyers do not buy large numbers of cattle as com-

pared with local packers; hence, too liberal a supply when food is cheap is a frequent occurrence. When such a condition exists, prices for good to choice heavy shipping steers are no better and sometimes a little less than for prime steers of the lighter, handy-weight grades, say from 1,200 to 1,400 pounds. The demand for this class of cattle is more constant and steady than the supply. Under normal conditions as to market and price of food stuffs there is a steady demand for this class of cattle at a strong price. Naturally enough the packers need some heavy carcasses, but they are seldom obliged to make any special effort to buy them, as they secure a sufficient supply from the lighter weight lots which they purchase. Boston is the best buyer on the Chicago market for heavy steers, taking from ten to fifteen loads per week. These heavy weight cattle are not the only ones taken by the shippers, as they buy cattle ranging in weight from 1,150 to 1,500 pounds of the medium, good choice, and the prime grades of steers. There is a limited demand the year round for prime 1,200 to 1,300 pound cattle for the high class New York trade, and it may be said there is no trade more discriminating as to quality and condition, nor any more willing to pay good strong prices for fat cattle that meet its requirements. There is no city in the world, unless possibly it is London, that uses so many prime steers as New York. The extreme weights for shipping steers are from 1,000 to 1,700 pounds. The bulk, which include steers of the most desirable weight, are between 1,200 to 1,450.

Dressed Beef Cattle.

The grades of cattle used for dressed beef by the Chicago packers are so various that it is difficult to select those which could be said to fairly represent the types most in demand. It is true that there is a wider range in weight, quality, and condition among cattle bought for Chicago slaughter than among those purchased for shipping or for export.

The export grades are confined within the most narrow limits both as to quality, condition, and weight. Shipping steers vary more than export steers, but much less than the cattle bought by packers. In the shipping class we find a much wider range of weight, quality and condition than in export cattle, yet the variations are not so great as among beef cattle bought by Chicago packers. While perhaps no trade demands a better grade of cattle than packers, it is equally true that no trade can use so advantageously the medium and poorer grades. Generally speaking, packers will buy anything in the line of cattle when there exists a proper relation between the price per pound live weight and their killing qualities. It is an open question whether packers or eastern buyers are more discriminating as to quality and condition when both are on the market for prime bullocks. Packers have a steady demand throughout the year for the best grades of fat cattle to supply

high class local and out-of-town trade, while the demand for cheap beef from the mining and lumber camps requires them to make extensive purchases of the cheaper grades of cattle. For the export dressed beef trade packers buy well fatted steers of the good grade ranging in weight from 1,200 to 1,400 pounds. When cattle are in light supply and packers are short of the poorer grades they clean up the "stocker alleys," buying anything, as they say, "that has any kill to it." The extreme range of weight in steers purchased for dressed beef would be from 800 pounds for good corn-fed yearlings to 1,700 pound steers of all grades. The bulk are wanted between 1,200 and 1,400 pounds of the medium, good, and choice grades.

It will be observed that in the general classification, no maximum weight is given above 1,600 pounds. Comparatively speaking but few lots of cattle reach the market exceeding this weight; hardly enough to warrant making the maximum weight in every instance 1,700 pounds. Then again since there is nothing to be gained in making a steer weigh 1,700 pounds, unless possibly some steers cannot be finished short of that weight, and even then a feeder must be very fortunately situated indeed if he can make a profit from the feeding of steers that cannot be finished short of that weight, there is abundant reason for failing to recognize the existence of such cattle. The sooner breeders and feeders fully appreciate these facts the better for their financial interests.

The best way to become familiar with the various grades of cattle and their selling qualities is for the feeder to follow his shipments to the market, where the value of his cattle will soon be known. One should first study the characteristics of the prime steer, a thorough understanding of which will furnish the best standard for comparison and study of the grades lower in quality and condition. The description of the characteristics of the prime steer given elsewhere in this bulletin will be found helpful in this study, and it should be borne in mind at all times that this description will answer for export, shipping, and dressed beef steers of the prime grade.

BABY BEEF, DISTILLERS, AND TEXAS CATTLE.

The terms, "baby beef," "distillers," and "Texas and Western range cattle," are often looked upon as distinct classes, while in reality they are subdivisions of the beef cattle class. Except in case of baby beef, which is confined to the choice and prime grades, they vary in quality and condition as do other beef cattle and their grades are the same. A brief note is appended that will serve to define these terms.

BABY BEEF.

Baby beef is a term applied to a grade of steers, choice or prime in quality and condition with a conformation that accompanies steers of

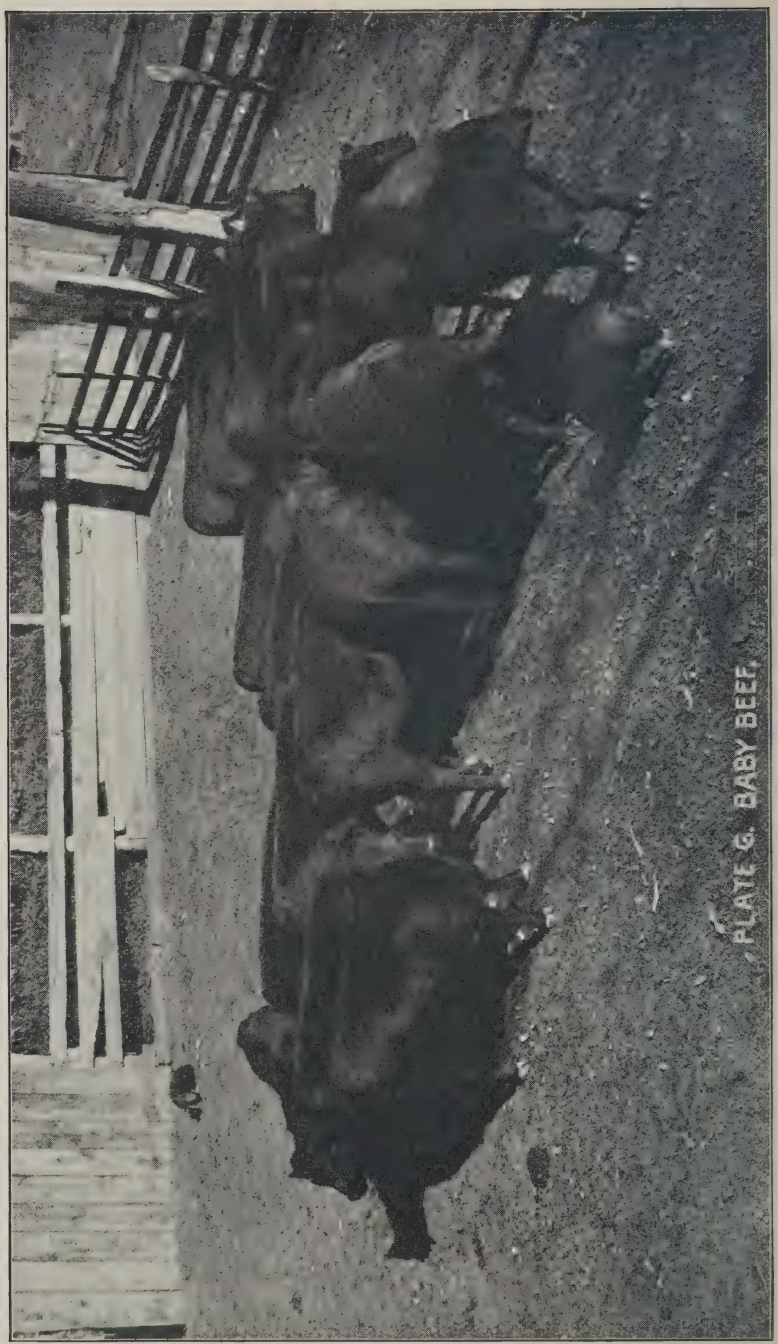

PLATE G. BABY BEEF.

good killing qualities. To grade as baby beef such steers should be between one and two years of age, and weigh from 800 to 1,000 pounds. Such cattle grade as choice or prime and are quoted as such in the market. See Plate 6.

DISTILLERS.

Distillers or "Still" cattle are cattle which have been fed on the by-products of distilleries. Formerly parties desiring feeding cattle to consume the residues of distilleries purchased only the poorer grades of feeding bulls, stags, and steers. Some parties now, however, use a better grade of feeders. When sent to the market they are preferred to other cattle of the same grades because they dress a higher percentage of beef, owing to their carrying a small amount of offal. During the fattening process their paunches have been reduced in size. Practically all "Still" cattle are classed as beef cattle; only occasionally are any poor enough to be classed and sold as butcher stock. Distillers are used for dressed beef and export either alive or dead. Plate 20 shows a load of good distillery-fed bulls that were sold for export.

TEXAS AND WESTERN RANGE CATTLE.

A few years ago Texas cattle were a class as distinct as any reaching the Chicago market. They were distinguished by their long horns and legs, their thin flesh, narrow bodies, and large deep brands. To-day the noticeably long-horned Texan is rarely seen in the Chicago market. At the present time many Texas cattle have such a high percentage of the blood of the improved beef breeds that such of them as are not of a polled breed, or dehorned, possess horns of short or of medium length; thus they attract but little attention and receive much less adverse criticism than formerly when they were the butt of ridicule. They now frequently have the low-down blocky form, too, which indicates that they have descended from the best strains of beef-producing ancestry. They are often as well bred and of as heavy weights as native steers. The proportion of well-bred stock cattle in Texas is rapidly increasing.

The term "Texas cattle" is, therefore, no longer necessarily indicative of an inferior grade of fat cattle, while it is still true that there is an exceedingly wide range between the best and poorest. The range in quality, condition and price is greater, perhaps, than in any other class of cattle reaching the market, the best occasionally showing the quality and finish of our native steers and selling for prices but little, if any, below the prices quoted for prime native steers. In such instances they are, of course, used for the same purposes, except that they are seldom exported. Some Texas cattle have been exported from Galveston, largely, however, to Cuba. The lower grades of Texans go for canners.

PLATE 7. TEXAS CATTLE 1886.

PLATE 8. TEXAS CATTLE 1901.

The quality, finish, and method of feeding being the same, buyers make but little difference, say from ten to fifteen cents per hundred pounds, between Texas and western range cattle and natives, although they try to discriminate against the former. Whether they are able to do so, and whether such discrimination amounts to much depends upon the available supply of fat cattle. It is not an infrequent occurrence to hear buyers and salesmen in the Texas division of the yards drop the remark that "if those cattle had been in the native division they would have brought more money." Of course there is always a slight discrimination against branded cattle on account of the brands injuring the value of the hides. There is less competition among buyers for Texas cattle than for natives. In general, however, it may be said that the same quality and condition in western range cattle bring about the same money as natives except in the early season when grass is flush and washy.

Texas cattle coming from north of the quarantine line sell better than those coming from south of the line. Texas cattle coming from south of the quarantine line are sold in the Texas division, while those coming from north of the line and from the western ranges are sold in the native division. Western range cattle are classed with Texas cattle because they were formerly largely made up of cattle which had been wintered on ranges north of the quarantine line. Many, perhaps about one-half, of the cattle on the ranges of the west and northwest are now bred there; hence the cattle coming from ranges are not altogether cattle that have been shipped there from Texas or other states in the southwestern district. Then again, more feeding is going on in the southwestern states owing largely to the more extensive use of cottonseed meal for fattening purposes. This, of course, has materially reduced the available number of stock cattle for corn belt feed lots from southwestern ranges. The western range cattle that are Texas or southern cattle brought north and ranged for one or two seasons are often spoken of as "Montana-Texans," "Wyoming-Texans," "Dakota-Texans," etc., or in case exactness is desired, "single-wintered Montana-Texans," or "double-wintered Montana-Texans," as the case may be, to distinguish them from western range cattle bred on the ranges.

All Texas and western range cattle are branded and they are sometimes spoken of as "branded cattle." The strict interpretation of the term "western rangers" is, western cattle shipped to the market off the range, or in other words, "grass westerns." The "range season" varies somewhat from year to year, but ordinarily begins about the middle of July and closes the fifteenth of November. It is during this season that the bulk of grass westerns reach the market. There is another kind of western cattle, namely "fed westerns." Fed westerns include range cattle which have been shipped into Illinois, Iowa, or other feeding states and there fattened. The accompanying cuts are given to illustrate the

improvement wrought on a Texas ranch during five years by the persistent use of good Shorthorn bulls. Plate 7 shows a drove of Texans sold on the Chicago market six years ago. Plate 8 shows a drove from the ranch sent to the Chicago market about a year ago.

BUTCHER STOCK.

Butcher stock, cutters, and canners may be looked upon by cattlemen of the central west as by-products of the cattle-feeding industry. However carefully stockers and feeders are selected, one is almost sure to get a few animals that do not fatten satisfactorily. These ultimately find their way to the local or Chicago market; in either case they would be classed as butcher stock.

Not all butcher stock, however, has had an opportunity to become finished. Quite a large number of cattle of all grades as to weight and quality reach the market after having been only "warmed up," an expression that is applied to thinnish cattle that have been full-fed but a short time, during which time they have made such gains that they begin to show the effects of feeding. Such cattle are usually classed as butcher stock.

The line between the thinner steers belonging to the butcher stock class and fleshy stockers and feeders is not clearly defined. Whether a thin steer belongs to the butcher stock or the stockers and feeder class, will depend largely upon the supply of cattle of the better grades, although the quality of the offerings may have some influence upon the final disposition of such animals. If the supply of fat cattle is much short of the demand, buyers of cattle for slaughter are forced to take some of the thinner grades, that would ordinarily be classed as stockers and feeders. Then again, when there is a liberal supply of fat cattle some rather well-fleshed lots sell as stockers and feeders. In the former case cattle of the thinner grades are slaughtered and prices are paid for them that feeders do not see their way clear to pay; while in the latter instance feeders are more liberal buyers owing to the more moderate prices prevailing for such stock. The better the quality of the offerings the more apt they are to be used for further feeding. It should be borne in mind that the bulk of butcher stock is made up of cows and heifers.

In general, very few steers of good quality are ever classed as butcher stock. A steer of good or choice quality that is not fat enough to be classed as a beef steer is classed among the better grades of stockers and feeders. We find much better quality in butcher heifers than among butcher steers. Butcher stock then includes, so far as steers are concerned, only the poorer grades such as common rough steers that may be classed either as beef cattle, butcher stock, or stockers and feeders, the classification depending upon the supply and demand for the various

classes of cattle. Owing to their lack of quality they are seldom used as feeders.

The bulk of butcher stock is made up of fat cows, heifers, and bulls; they are graded as follows:

Prime heifers	800 to 1200 lb.
Choice heifers	700 to 1000 lb.
Good heifers	700 to 1000 lb.
Medium heifers	600 to 900 lb.
Prime cows	
Choice cows	
Good cows	
Medium cows	
Common rough steers	800 to 1200 lb.
Choice bulls	
Good bulls	
Medium bulls	

PRIME HEIFERS.

The same conformation, quality, and condition are demanded in prime heifers that have already been noted as characteristic of prime steers. See discussion of the characteristics of the prime steer, also Plate 9.

CHOICE HEIFERS.

Choice heifers must possess quality and condition to a marked degree, although they lack the faultless quality and finish that characterize prime heifers. They are good enough to convert into the better grades of block beef. To secure the necessary quality to be classed in this grade they must show unmistakable evidence of carrying a high percentage of the blood of some one or more of the breeds of beef cattle. Plate 10.

GOOD HEIFERS.

Good heifers may and usually do lack both in condition and quality, although a heifer of choice quality might be classed as a good heifer simply because she was deficient in condition. Good heifers must have a conformation that indicates that they will dress out a good percentage of beef and fat. Plate 11.

MEDIUM HEIFERS.

As a usual thing it requires better heifers as to quality, condition, and conformation to grade as medium heifers than it does in steers to grade as medium steers. Such heifers seldom show much quality, and invariably show a decided lack of flesh. The bulk of medium heifers like medium steers are light weight. Plate 12.

Prime Cows.

This grade includes a very small number of strictly fancy, well-bred cows in prime condition. Such cows are often taken for export. They are the only grade of cows on the market which are not open to criticism by buyers wanting fat cows; in other words they are practically above criticism as to conformation, quality, and condition. These cows are often used by packers for the same purposes for which they use steers. Plate 13.

Choice Cows.

Cows of this grade must be in prime condition, but may lack some of the quality and breeding shown by prime cows; they are fit for export, and on some markets sell for nearly as much as choice heifers. Frequently a few choice cows, like choice heifers, are shipped to market in the same car with steers, and sell for a uniform price, in which case they may be used for the same purposes. Plate 14.

Good Cows.

Good cows lack both in condition and quality. They are fat enough, however, to make carcass beef, and possess a conformation which indicates that they are reasonably good killers. To bring an average market price they must, of course, be considerably better than the average butcher stock cows. Plate 15.

Medium Cows.

Medium cows are sometimes called "beef cows" to distinguish them from cutters. Such cows are decidedly lacking in form, condition, and quality. They belong to the lowest grade of cows, the carcasses of which may all be used to sell over the block. Plate 16.

Common Rough Steers.

Steers of this grade lack very noticeably in form, quality, and condition. Ideal beef form is not looked for in common rough steers. Whether a lack of quality or condition is more apparent depends upon market and crop conditions. Generally speaking a lack of quality is the more apparent. (Refer to description of common rough steers in beef cattle class, also Plate 3.)

Choice Bulls.

To be choice, bulls must possess quality or beef blood to a high degree, and along with that quality should go fine finish. Comparatively few choice bulls reach the Chicago market, and when they do, they are frequently bought for export. About one-third of the choice bulls are

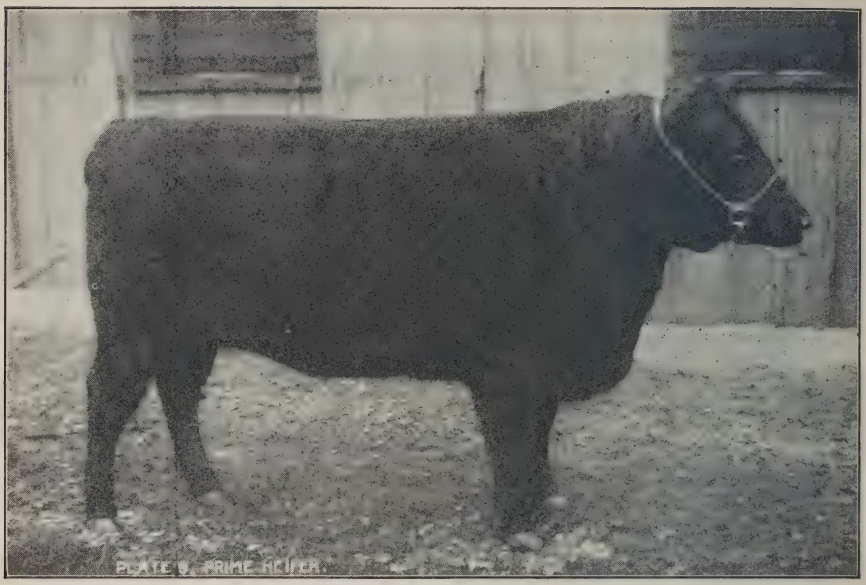

PLATE 9. PRIME HEIFER.

PLATE 10. CHOICE HEIFER.

PLATE 11. GOOD HEIFER.

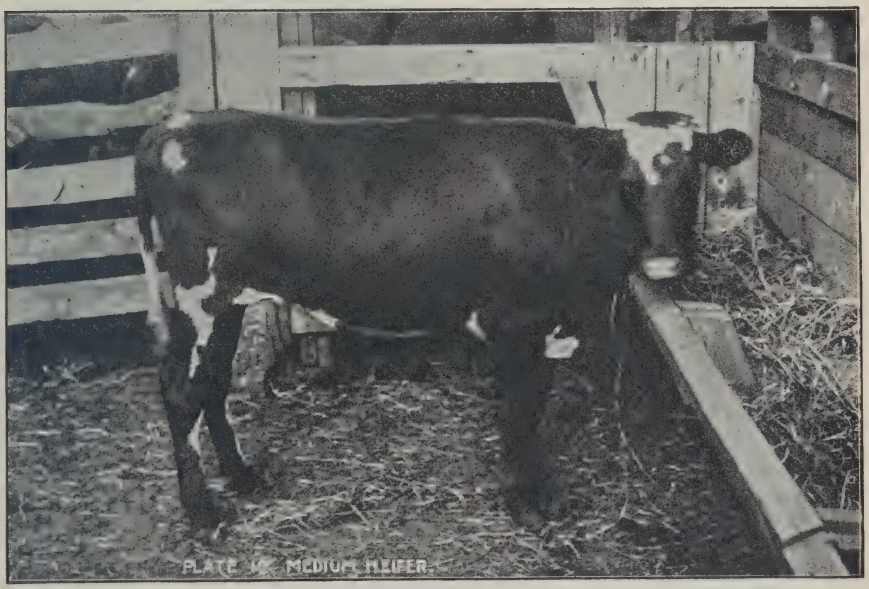

PLATE 12. MEDIUM HEIFER.

used for dressed beef. They must be entirely free from that roughness and coarseness which characterize so many aged bulls. The supply of choice bulls is made up largely of aged bulls. Plate 17.

GOOD BULLS.

Good bulls contain a high percentage of beef blood, or at any rate they carry the flesh and show the conformation which usually accompany well-bred beef bulls. They frequently lack both in quality and condition, but a decided lack of either may furnish sufficient reason for their being classed as good and not as choice bulls. Bulls of this class are often exported. Plates 18 and 20.

MEDIUM BULLS.

Medium bulls lack both condition and quality to a marked degree. They are usually thin-fleshed, long-legged, coarse fellows. They are too good to be classed either as Bologna bulls or canners, and still inferior both as to quality and condition. This is the lowest grade of bulls used for block beef. The line between medium butcher bulls and Bologna bulls is not definitely drawn. It varies from time to time with the demand for butcher stock and Bologna bulls. Plate 19.

STAGS.

Stags are not included in the market classification because relatively only a few are coming to market. In the few sent forward there is a great range of quality, condition, and weight. Some of the better grades are exported, while the most inferior offerings go for canners. Plate 28 shows a choice stag which went for export and would be good enough for the better grades of dressed beef.

CUTTERS AND CANNERS.

The impression prevails among those unfamiliar with the trade that only old, thin cows are classed as canners, and this inexperience naturally renders such unable to appreciate the variations that exist in the value of different individuals in the same class. The truth of the matter is that wretchedly thin fleshed bulls, steers, and heifers, as well as cows, are included in this class. An attempt to become familiar with this branch of the cattle trade will quickly reveal the fact that like the buying and selling of other classes of cattle, the buying and selling of canners and cutters requires a thorough knowledge of this class of cattle and the purposes for which they are used. It is a mistake to assume that there is only one grade of canners and cutters, for there are several, and each is as distinctly different as are the grades of fat cattle. In an attempt to fix their value to the slaughterer, there is, perhaps, no other class of

PLATE 13. PRIME COW.

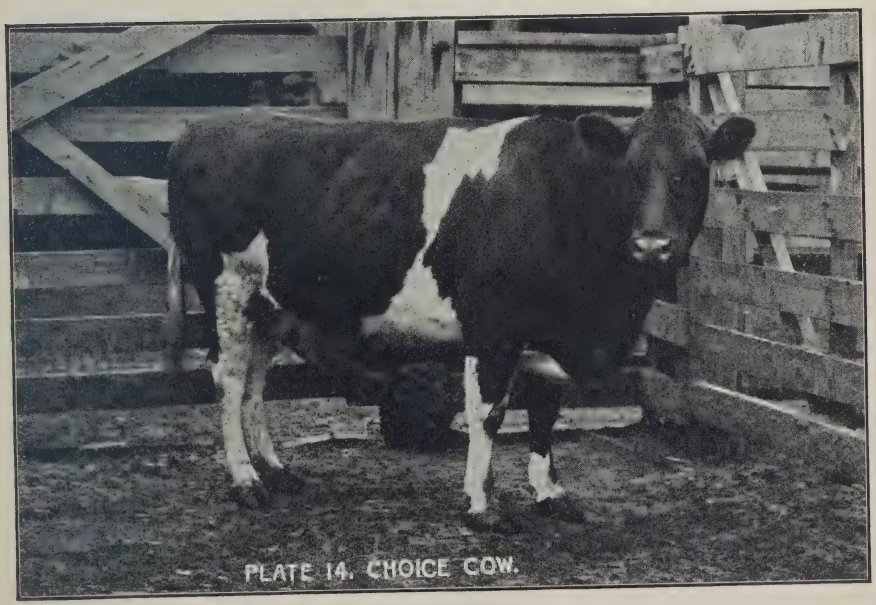

PLATE 14. CHOICE COW.

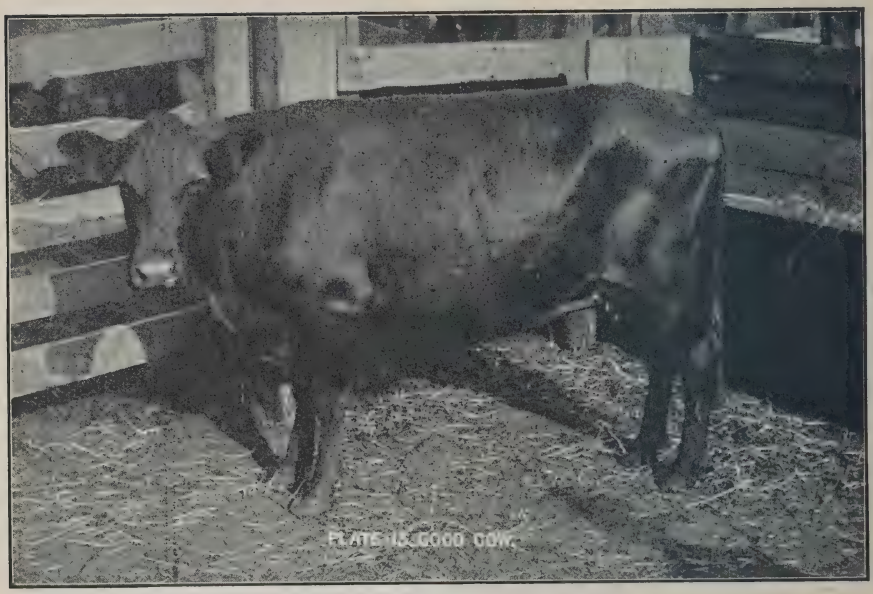

PLATE 15. GOOD COW.

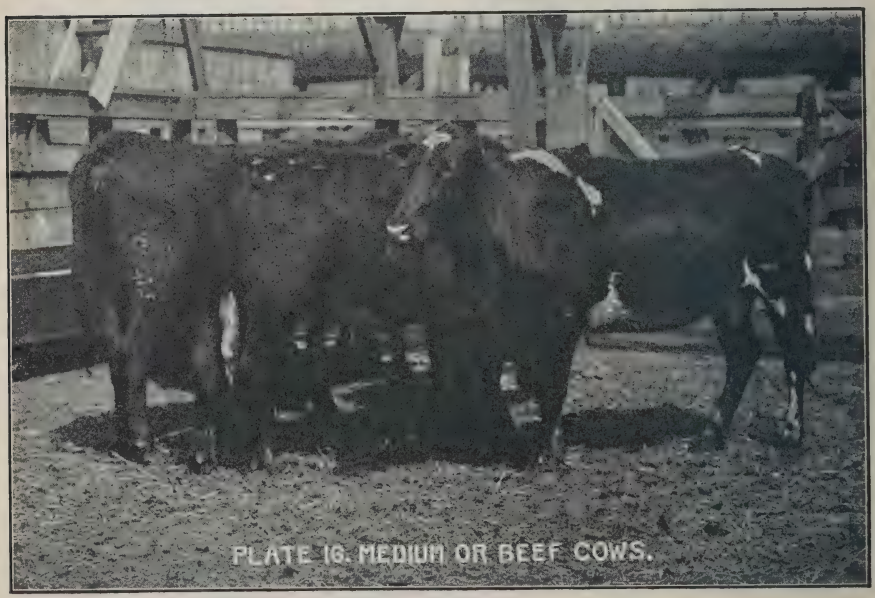

PLATE 16. MEDIUM OR BEEF COWS.

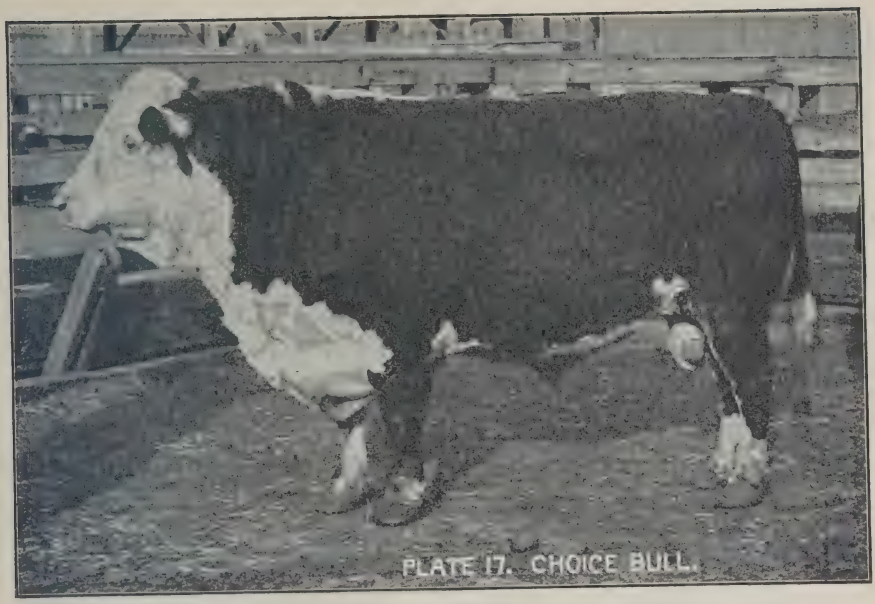

PLATE 17. CHOICE BULL.

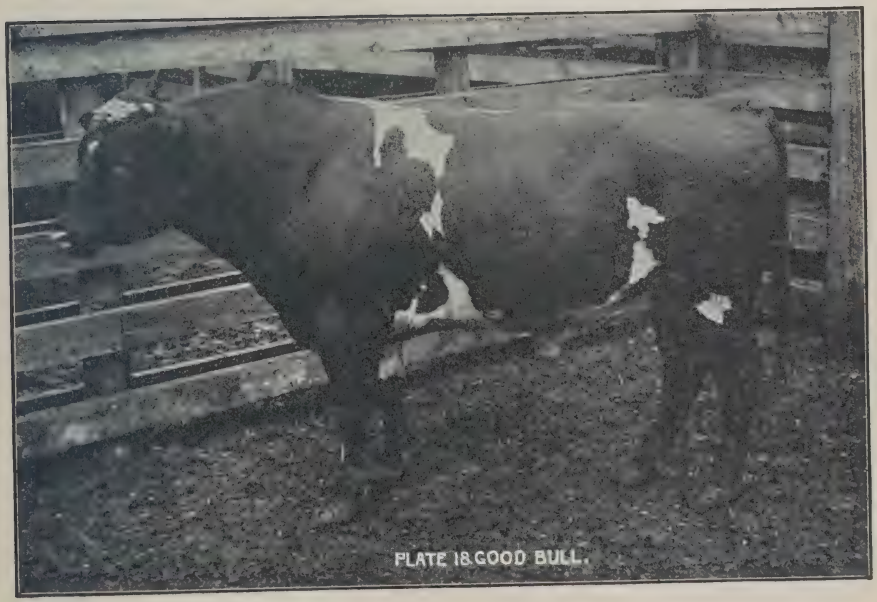

PLATE 18. GOOD BULL.

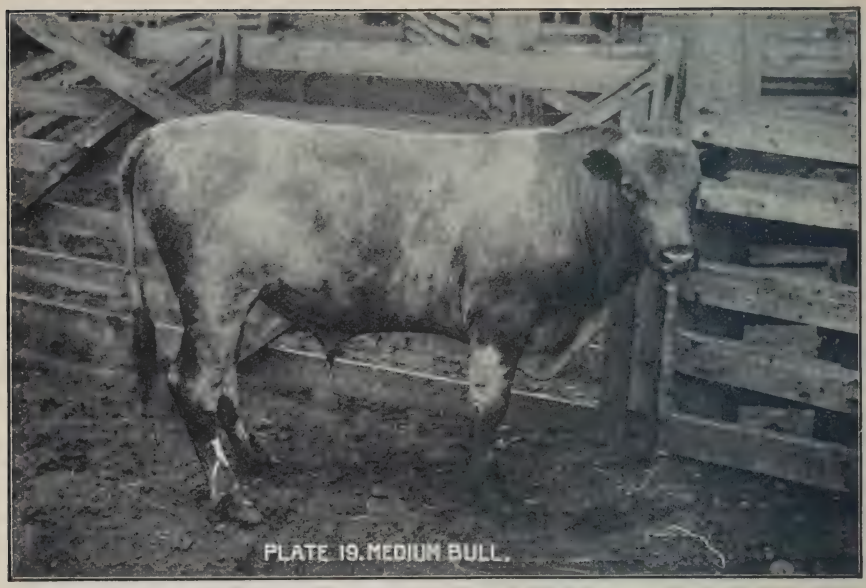

PLATE 19. MEDIUM BULL.

PLATE 20. GOOD DISTILLERY BULLS.

cattle which presents such great difficulties to the novice as this one. The form or conformation of a cow counts for more as indicating the value of the animal than it does in the better market classes and grades of cattle. When the significance of the fact is realized that some cows dress out 60 percent of dressed beef while others dress only 35 percent, the importance of a close study of this class of cattle by the buyer is appreciated, if he hopes to secure a profit from their slaughter.

Cows quite generally show a high percentage of offal in dressing. To make proper allowance for this, buyers discriminate against excessive paunchiness even where the quality and condition are otherwise quite satisfactory.

Canners include thin cows, inferior steers, heifers, bulls, and stags, and, in fact, anything of a low, inferior grade that is too lacking in flesh to permit of even a part of the carcass being used for block purposes. Cutters include the better grades of the same general class. Cutters must carry sufficient flesh to permit of the loin or rib, or both being used for cutting or selling over the butcher's block. The class of canners and cutters and the grades within this class are more or less elastic and variable, as are all market classes and the various grades within them. A thin cow, inferior steer, heifer or bull that might be classed as a cutter to-day may be classed as a canner to-morrow. Such radical changes of market conditions cannot, of course, be more than mentioned in a discussion of this nature. They are changes which are always noted in market reports. As a general guide it may be borne in mind that a scarcity of beef cattle of all grades forces packers to use cattle for cutting and block purposes that would ordinarily be used as canners. Good cutters might be classed as butcher stock when such cattle are in strong demand and the supply is limited.

The bulk of cattle classed as cutters and canners may be graded as follows:

Good cutters.....
Medium cutters.....
Common cutters and good canners.....
Medium canners.....
Inferior canners.....
Bologna bulls.....

Good Cutters.

From the very nature of the cattle with which we are now concerned it cannot be said that there is anything in the cutter line that is choice. When an animal is a little too good to be classed and graded as a good cutter it would be classed as butcher stock and graded as medium. The grade of cattle, therefore, spoken of as good canners, is just a grade lower than medium or beef cows, heifers, and bulls. They lack the conformation and flesh which should prevail in such stock. The bulk of the offer-

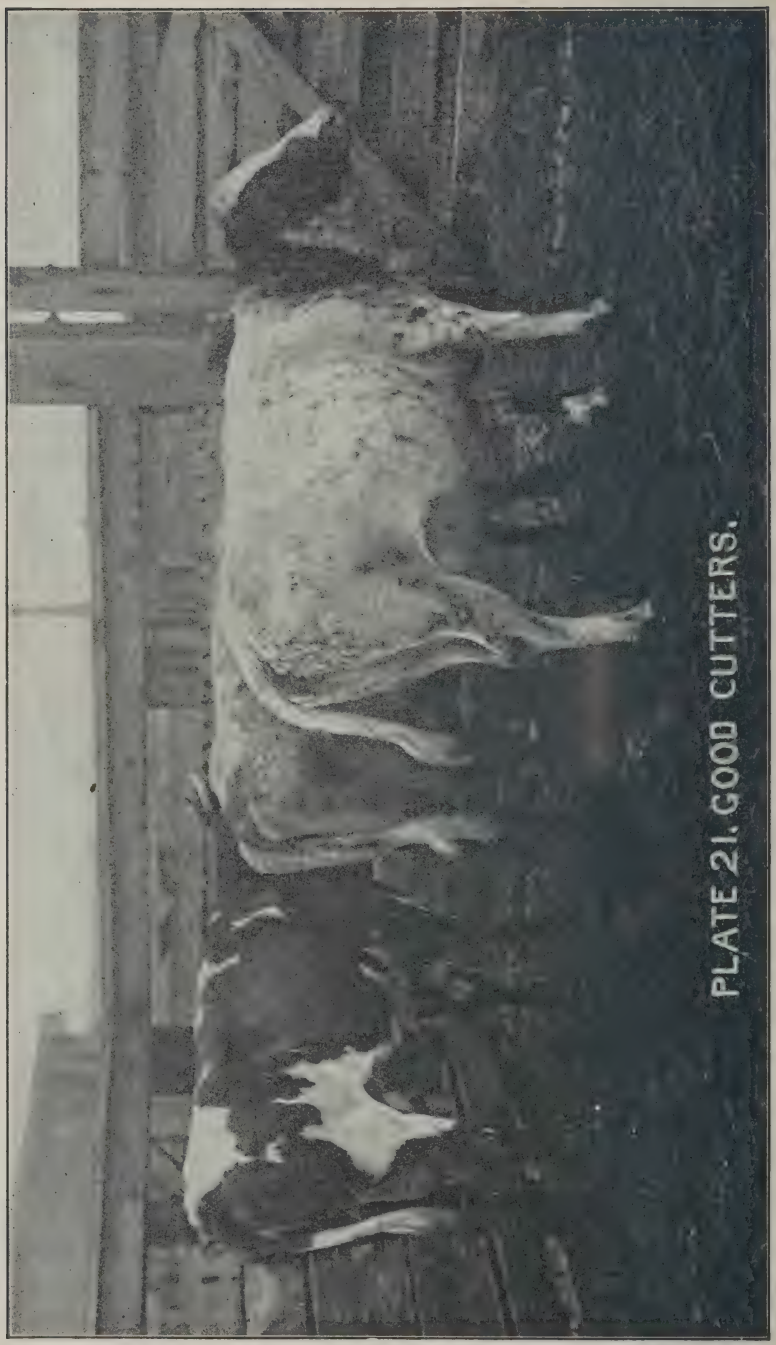

PLATE 21. GOOD CUTTERS.

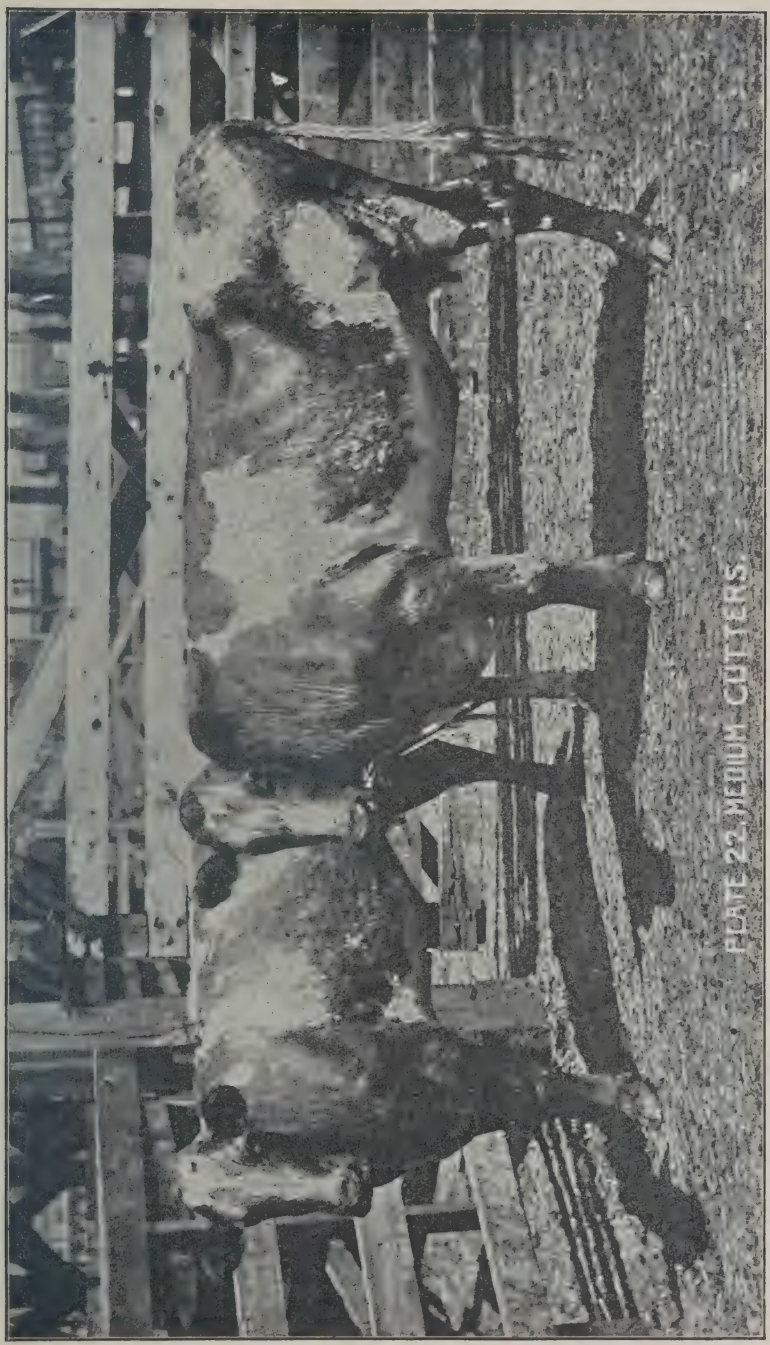
PLATE 22.MEDIUM CUTTERS.

PLATE 23. COMMON CUTTERS OR GOOD CANNERS.

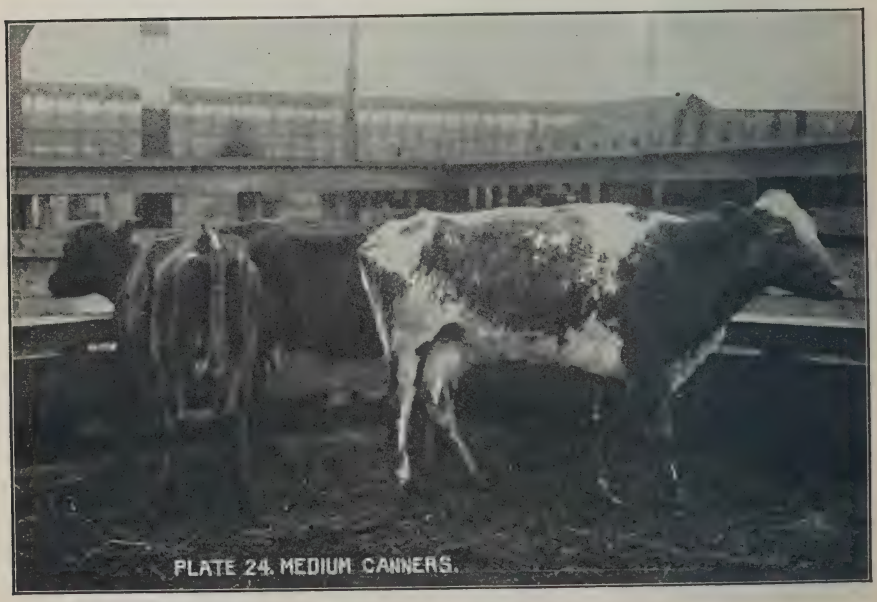

PLATE 24. MEDIUM CANNERS.

PLATE 25. INFERIOR CANNER COWS.

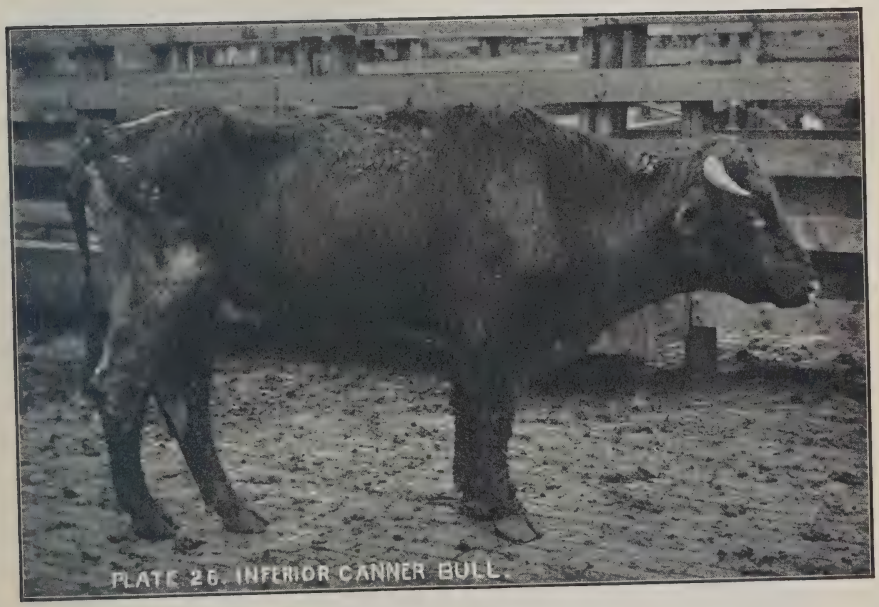

PLATE 26. INFERIOR CANNER BULL.

ings in this grade consist of farrow dairy cows that carry some flesh, but not enough to warrant an attempt to use all as carcass beef. Plate 21.

MEDIUM CUTTERS.

Low grade, thin cattle may be classed as medium cutters simply because they do not have the conformation which indicates an ability to dress a relatively high percentage of carcass to live weight, or they may be noticeably lacking in flesh.

The fact should be emphasized that it is the conformation indicating an ability to dress a high percentage together with the possession of a moderate amount of flesh that determines the eligibility of an animal to the better grades of this class. Quality or beef breeding has little to do with it, since the majority of canners and cutters are dairy bred stuff. Plate 22.

COMMON CUTTERS AND GOOD CANNERS.

Common cutters and good canners may be considered in the same grade, as they are between canners and cutters. The dividing line between the two is far from being definitely drawn. It is determined by the supply of and demand for such stock rather than the quality and condition of the offerings. It is believed that more can be learned from a careful study of the cut illustrating this grade than from any description that might be given. Plate 23.

MEDIUM CANNERS.

Market conditions, seldom if ever, vary enough so that medium canners would ever grade as cutters. The experienced buyer or salesman knows at a glance that such stock are canners, and can never be looked upon as possessing flesh enough to be used for any other purpose. They are rough and angular and decidedly devoid of flesh. Plate 24.

INFERIOR CANNERS.

Inferior canners are honored by more significant names than any other class of cattle around the yards. Canners must be inferior to a marked degree to be so graded or to attract any particular attention from salesmen or buyers. If they are clearly of the inferior order they may be referred to as "Dairy maids," "Nellies," "Hat racks," or "Skins." Plates 25 and 26. The former shows inferior canner cows and the latter an inferior canner bull. The bull shown in Plate 26 sold on the Chicago market June 25, 1902, for a total of $7.00.

BOLOGNA BULLS.

Bologna bulls are a grade lower than medium butcher bulls, notice of which has been made previously in this bulletin. They lack the flesh

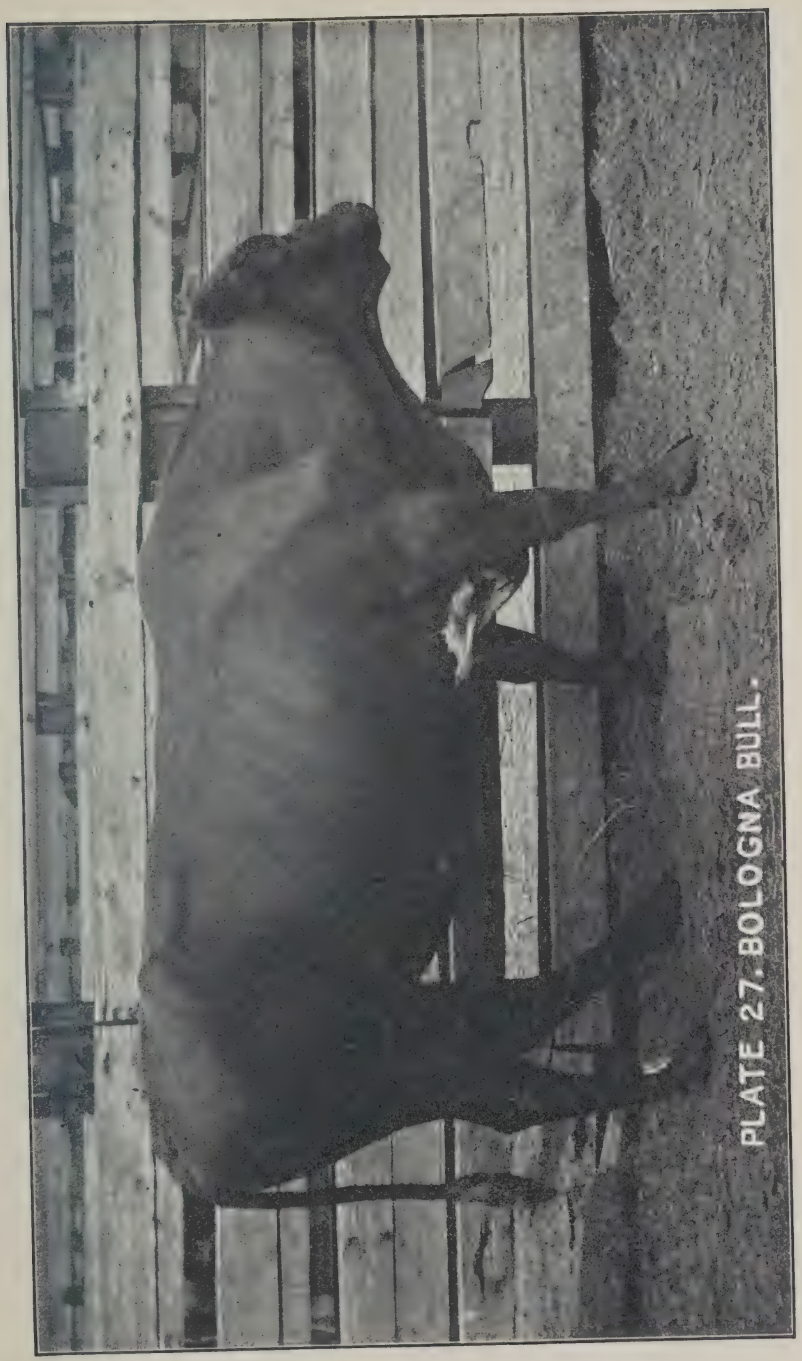

PLATE 27. BOLOGNA BULL.

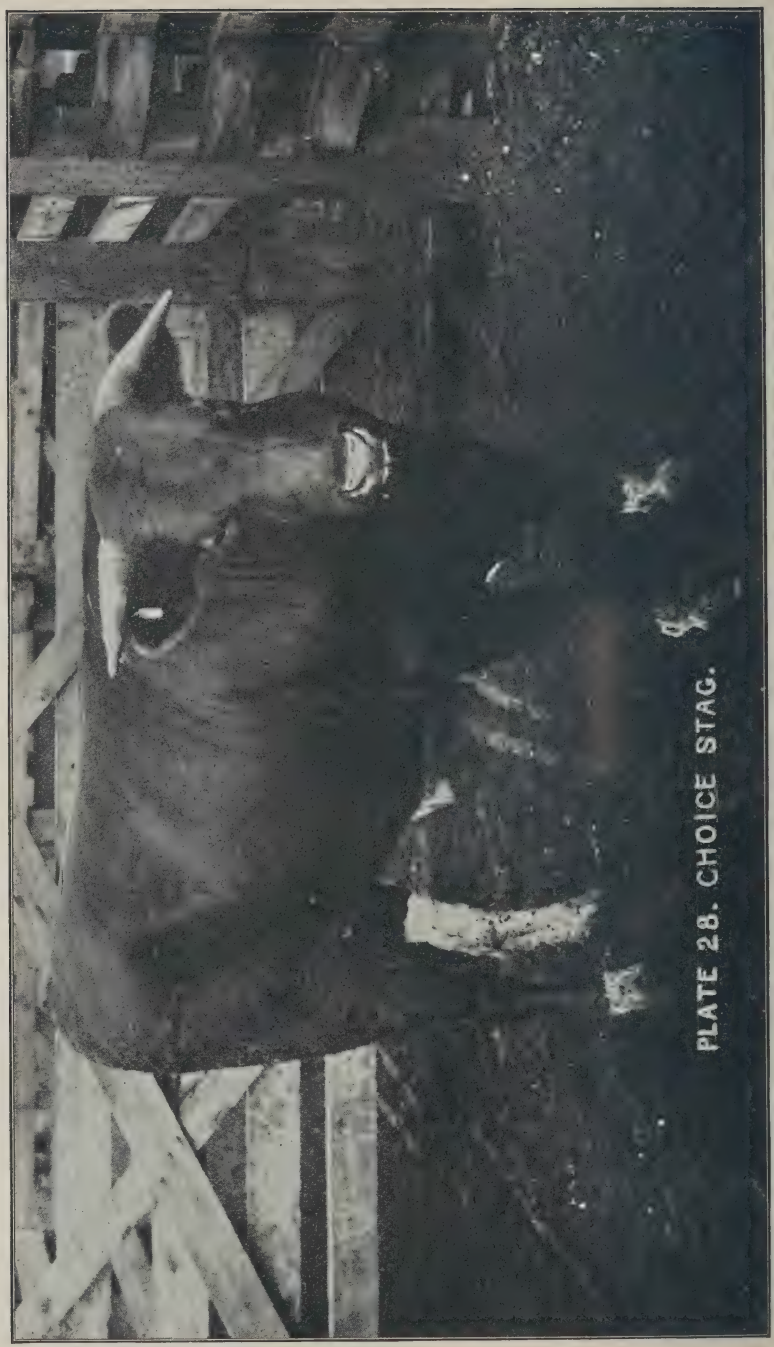

PLATE 28. CHOICE STAG.

and conformation so manifestly characteristic of well conditioned beef bred animals. In this class we find a somewhat wide range of quality, flesh, conformation, and weight. It includes all bulls between medium butcher and canner bulls. A part of the loins and ribs of Bologna bulls are used for block purposes, hence they would grade as cutters rather than as canners. Plate 27.

STOCKERS AND FEEDERS.

For the man who makes a business of breeding or feeding beef cattle for the market, there are two classes of cattle that should receive his most careful study; namely, Beef Cattle of the good, choice, and prime grades, and Stockers and Feeders. These two classes represent the beginning and the end of the feeding process.

The class, stockers and feeders, include calves, yearlings, two-year-olds, and older cattle. Each is graded according to age and quality, the condition being indicated largely by range in weight. When it becomes necessary to refer to steers or bulls eighteen months old or older that are intended for immediate use in the feed lot, they are spoken of as feeders. Calves, heifers, and young steers, including yearlings, are referred to as stockers. Some difficulties are encountered in attempting to draw a definite line between stockers and feeders in this class. The importance and value, however, of having the grades of this class quoted in market reports in a manner which will at once convey to the reader a correct impression as to the quality of the offerings and their market values, is generally recognized. Cattle of the same grade, age, quality, and weight shipped to the country by two different feeders might not be handled at all alike; one feeder might use them as stockers while the other might place them in the feed lot for immediate use. It is obvious, therefore, that the use to which the cattle are put by the feeder is not a correct basis for classification. A safer basis would be to let the combined factors of age, weight, and condition of the animals decide whether they should be quoted as stockers or as feeders.

It is seldom that a steer weighing less than 800 pounds is placed in the feed lot, and the common practice is to buy steers for feeders that weigh from 900 to 1,000 pounds, and often heavier. Such steers are usually eighteen months of age or older. Steers spoken of in the market as feeders are, generally speaking, in better flesh than stockers. As a rule, therefore, we may classify as feeders, steers weighing 900 pounds or more that are eighteen months old or older, and that are fleshy enough so as not to render an extended period of low feeding necessary. To be sure, some of the better grades of younger and lighter weight cattle that would be called stockers under this system of classification, are occasionally purchased for immediate use in the feed lot. This is the excep-

tion and not the rule. In the interest of uniformity and because heifers going back to the country are more often used for breeding purposes than for feeding, all heifers in the stocker and feeder class will be considered as stockers, and in our judgment should be so quoted.

Since quality or breeding very largely determine the grades within the class whether the animals are stockers or feeders, a description of the various grades of feeders will answer equally well for the same grades of stockers excepting the grades of stock heifers.

It is not the intention at this time to discuss the question as to whether it pays best to buy and finish good to choice strong weight stockers or inferior light and common to medium grades. This is a question which depends largely upon local and market conditions. In this matter it is safer to depend upon the intelligent judgment of the feeder than upon any general principle involved.

It is a comparatively easy task to name the characteristics of the prime steer, or at least one which will meet the present requirements of the market; not so the choice feeder. In the former case we have a finished product. In the latter, we are obliged not only to determine whether the steer in finishing will take on that smoothness of outline, that condition and that quality demanded by the market, but also that the same steer when placed in the feed lot will meet the requirements of the farmer by proving a profitable feeder.

The farmer carries the steer through the fattening process that he may realize a profit by the enterprise. As a rule he is not particular whether he secures his profit by the increased value of each pound of beef by converting the relatively cheap, raw material in the form of stockers and feeders into high-priced prime steers, or whether he has realized that profit by being able to produce gains in live weight without a gain in value per pound. Manifestly it is to the former source of profit that he must look with greatest confidence. It is clear, however, that by overlooking the factor of ability to convert economically grain and forage into beef, we disregard a possible source of profit and run great risk of sustaining loss in our feeding operations, where with proper regard to this factor a substantial profit is possible. To put it in another way, we may say that when put into the feed lot the feeder is expected to gain in live weight; such gain may be made at a great loss, or under favorable conditions at a profit. The ability to make economical gains in flesh and fat is thus shown to be of vital importance, as is also, obviously, the first cost of the feeder.

The following grades include the bulk of the offerings.

Fancy selected feeders	900 to 1150 lb.
Choice feeders	900 to 1100 lb.
Good feeders	850 to 1100 lb.
Medium feeders	800 to 1050 lb.

Common feeders	800 to 950 lb.
Inferior feeders	800 to 900 lb.
Feeder bulls	1000 to 1200 lb.
Fancy selected yearling stockers	750 to 900 lb.
Choice yearling stockers	600 to 850 lb.
Good yearling stockers	550 to 800 lb.
Medium yearling stockers	550 to 750 lb.
Common yearling stockers	500 to 700 lb.
Inferior yearling stockers	400 to 650 lb.
Good stock heifers	600 to 700 lb.
Medium stock heifers	550 to 700 lb.
Common stock heifers	450 to 600 lb.

FANCY SELECTED FEEDERS.

Relatively very few of this grade of stockers and feeders find their way to market. Breeders fortunate enough to own thinnish steers of such quality usually hold them until finished as prime bullocks, or sell them at home to feeders at good strong prices, avoiding the expenses incident to shipping. Fancy selected stockers must not only possess the characteristics of good to choice stockers and feeders as described in the following pages, but they must be uniform in color, give unmistakable evidence of being high grades of some one of the beef breeds, and they are almost invariably better fleshed than feeders of the good to choice grades. Fancy selected stockers and feeders are to the Stocker and Feeder class what prime steers are to the Beef Cattle class—the best grade within the class—and practically above adverse criticism. They are the grade of feeders which if properly handled, will finish into prime steers of the market-topping order. Plate 29.

CHOICE FEEDERS.

It is highly desirable to describe in detail a standard grade of stockers and feeders; otherwise we should confuse rather than define. If the animals in one grade of stockers and feeders are more uniform than in the others it is in the choice grade. Steers of this grade will, under proper management, develop into choice and prime steers. It would seem wise therefore, to consider in detail their desirable characteristics.

It may be said then, that we demand in choice stockers and feeders, first, the ability to finish as choice or prime steers; and second, the ability to make economical gains in flesh and fat. As far as our present knowledge of the matter goes, we look for indications of these tendencies in the form, quality, and constitution.

1. *Form.*—The general form should be low-set, deep, broad, and compact rather than high up, gaunt, narrow, and loosely made. Stockers and feeders should be low-set or on short legs, because animals of this conformation are almost invariably good feeders and capable of early maturity. They should be deep, broad, and compact, because this con-

PLATE 29. FANCY SELECTED FEEDERS.

formation indicates good constitution, capacity for growth and for producing ultimately a relatively high percentage of the most valuable cuts. Select feeders with broad, flat backs and long, level rumps. They should possess straight top and underlines which should be nearly parallel; should be low at the flanks, thus forming what we have spoken of above as good depth, for the barrel of stockers and feeders as well as dairy cows should be roomy. An animal which is too paunchy, however, is objectionable to the butcher. The matter of low flanks should be emphasized as it is an almost unfailing sign of good constitution and good feeding quality. It should be borne in mind that the stocker and feeder, thin in flesh and largely destitute of external or surface fat, affords the best possible opportunity of determining the covering of natural flesh characteristic of the animal.

Secure as much smoothness of outline as is consistent with low flesh, being especially careful to avoid too great prominence in hips, tailhead, and shoulders. Avoid rough, open shoulders, sway backs and large, coarse heads with small eyes set in the side of the head. Short, broad heads, and short, thick necks indicate strong tendencies toward beef making. A large, prominent and mild eye is to be desired. The mild eye denotes that the animal has a quiet disposition, which all feeders know is so desirable in a steer intended for the feed lot. The distance between eye and horn should be short and the horn should be flat and of medium fineness rather than round and coarse. The lower jaw should be heavily coated with muscle; the muzzle, lips, and mouth should be large but not coarse.

2. *Quality.*—It is well to distinguish between what might be called (*a*) general quality, and (*b*) handling quality.

(*a*) General quality. By general quality is meant general refinement of external conformation as seen in the head, horn, bone, compactness and smoothness of outline. General quality is affected by nothing so much as by breeding; in fact, the two are very closely associated. Good quality is seldom found in a plainly bred steer, but is generally characteristic of a well bred animal. The desirability of general quality cannot be too strongly emphasized. While it is a characteristic that involves many points and is difficult to describe, its presence or absence is quickly discerned by the trained eye of the intelligent buyer. It is this characteristic in the stockers and feeders more than any other that we depend upon as indicating that the animal has within it the possibility of making a prime steer.

The ability to select stockers and feeders which have within them the possibility of making prime steers is one of the first and most important lessons for the stockman to learn. Profits in steer feeding come not so much from skill in feeding and management as from intelligent buying and selling. The profit resulting from an increase during the fattening

period of the value per pound of the total weight of the animal is as important as that resulting from the method employed in the feeding and management. It is seldom possible to produce at a profit gains which do not increase the value per pound of the total weight of the animal. Hence the importance of intelligent buying, or the selection of feeders and stockers of good quality.

(*b*) Handling quality. Good handling quality indicates that the possessor is a good feeder. It shows that the animal is in good health or thrift and capable of beginning to gain as soon as an abundance of food is supplied. We speak of cattle as possessing good handling quality when the skin is mellow and loose. A thick, mossy coat of hair of medium fineness and a moderately thick skin are also desirable.

3. *Constitution.*—The points indicative of good constitution have practically been covered under *Form.* Good constitution is indicated by a wide, deep chest, by fullness in the heart-girth, depth and breadth of body, and good handling quality. While we want refinement of form and bone, otherwise spoken of as general quality, we do not want that refinement carried to the point of delicacy. Too much refinement means delicacy or a lack of constitution, and no animal lacking in constitution should find its way into the feed lot. The desirable characteristics of beef form, quality, and constitution should be found in well bred high grades of any of the leading beef breeds. In the interest of uniformity in the finished product it should be observed that high grade Herefords can usually be put on the market in the fewest number of days and suffer most from carrying beyond the point of ripeness; that Shorthorns and Aberdeen Angus grades, while a little slower to mature, are in fully as strong demand in the market as are grade Herefords; and that Aberdeen Angus and Galloways may be carried longer on full feed than other breeds of beef cattle without indications of bunches or rolls of fat, which are so strongly discriminated against in our markets.

After all that may be said, however, as to breed, the important consideration is to see that the steer should be a high grade of some one of the beef breeds and that the selection of the individual should receive more attention than the selection of the breed.

The question of age should not be overlooked. A thrifty young steer of good weight and in good flesh is to be preferred to an older, stunted steer. It should be said, however, that a stunted steer of any age or weight is a profit spoiler in the feed lot. Uniformity in color of feeders is desirable, but the mistake should not be made of getting uniformity of color at the expense of more important characteristics. It is possible to secure good colors, reds and blacks, in steers of very poor quality and containing very little beef blood. If it is a question of choosing between a combination of good quality and correct conformation, and good colors —take the quality and conformation and let some other party have the

colors. The writer has sometimes thought that it is a disadvantage rather than otherwise that most registered beef bulls are so prepotent in transmitting their color markings. A one-eighth blood Hereford may have Hereford markings, or a one-eighth blood Angus the color and polled characteristic of the pure Angus and have but little beef character. Plate 30 shows a choice steer.

GOOD FEEDERS.

Good feeders possess only to a limited degree the beef blood, the thrift, and the conformation of a choice or selected feeder. It is not difficult to criticise them as somewhat lacking in the most desirable characteristics of an ideal feeder. They may be too long in the leg, too narrow on the back, and either too light or too heavy in the bone. Frequently feeders so graded have a tendency to be a little rough and coarse. It is generally true, however, that steers of this grade kept in the feed lot until ripe or finished will, in such condition, grade at least as high as good beeves, while it is not at all impossible for them to become choice enough in condition to grade as choice bullocks. Plate 31.

MEDIUM FEEDERS.

Medium feeders are only average as to quality and thrift. They are usually of lighter weight than the good, choice and selected grades. Plate 32 represents accurately the type of steers characteristic of this grade. They generally possess a fair amount of beef blood, enough so that their color is not objectionable. Their general appearance so far as it indicates their quality and thrift is rather against them, indicating that no matter how judiciously they may be handled it will be the exceptional steer among them that will develop into anything better than a medium or possibly a good bullock. It is seldom good practice to finish this grade of feeders.

COMMON FEEDERS.

A common feeder is decidedly deficient in quality. When the word common is correctly applied to a grade of cattle the reader should at once know that that grade of cattle is noticeably deficient in quality; it usually also indicates a lack of desirable conformation and flesh. In speaking of feeders it indicates that such feeders are common in quality, common in conformation, and common in condition. Like medium feeders, it seldom pays to attempt to finish them. Plate 33.

INFERIOR FEEDERS.

It would seem that a feeder of a lower grade than common might more properly be relegated to the level of a canner than be permitted the dignity of the name inferior feeder. As long, however, as there is

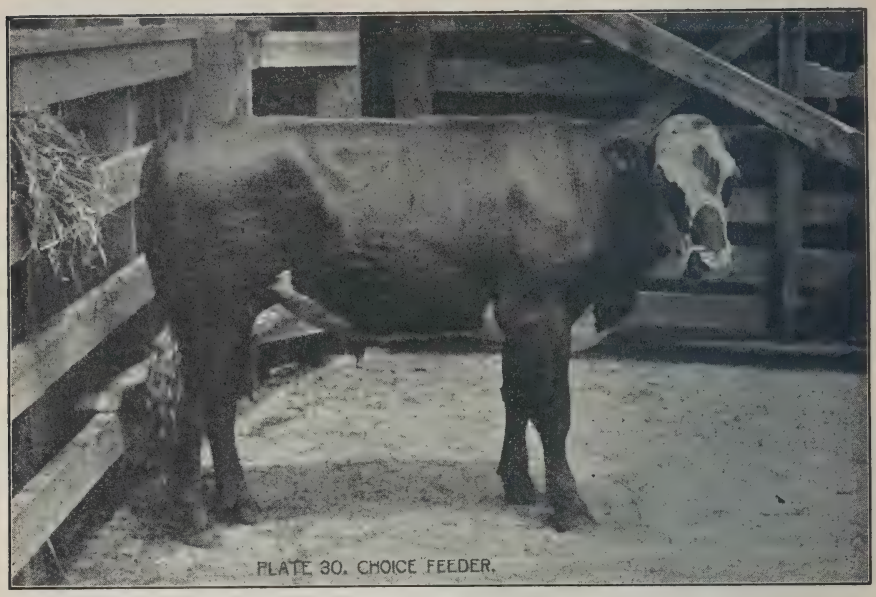

PLATE 30. CHOICE FEEDER.

PLATE 31. GOOD FEEDERS.

sufficient demand for inferior feeders they cannot consistently be omitted from quotations of the live stock market. Such feeders are rough and angular, largely devoid of natural flesh, and possessing the conformation of a dairy rather than a beef bred animal. In the feed lot they are slow feeders and do not make a satisfactory bullock when fat. Plate 34.

Plates 35, 36, 37, 38, 39 and 40 represent respectively, selected, choice, good, medium, common, and inferior stockers. A careful study of these plates together with the description of the various grades of feeders will help to fix in mind the characteristic differences in the several grades of stockers.

FEEDER BULLS.

Feeder bulls include a grade of young bulls shipped to the market in low condition. Bulls to be desirable for feeding purposes should be young, possess beef breeding conformation, natural flesh and thrift. They weigh from 1,000 to 1,200 pounds. Plate 41.

GOOD STOCK HEIFERS.

Relatively very few choice stock heifers are sold on the market, hence the best grade of stock heifers to be considered here will be good heifers. Stock heifers are bought to be shipped to the country both for the feed lot and for breeding purposes. Good heifers show considerable beef blood and possess good square frames. Such heifers are invariably in better thrift and condition than lower grades of stock heifers. Still they are hardly fleshy enough to be used as butcher stock. Whether a fleshy heifer would be used as a stock heifer or for slaughter would depend upon the demand for butcher stock and the prevailing prices for the same. Plate 42.

MEDIUM STOCK HEIFERS.

Medium heifers show less breeding and in general are noticeably thinner in flesh and lighter in weight than good heifers. They do not have the neat, blocky frames and they lack the quality possessed by the better grades of stock heifers. The heifer in Plate 43 shows rather more flesh than the average of this grade.

COMMON HEIFERS.

Common heifers are invariably lacking in both quality and condition to a marked degree. They are of lighter weight than the better grades and show evidences of dairy rather than beef blood. When such heifers are put in the feed lot and finished they would seldom if ever grade better than medium to good butcher stock. Plate 44.

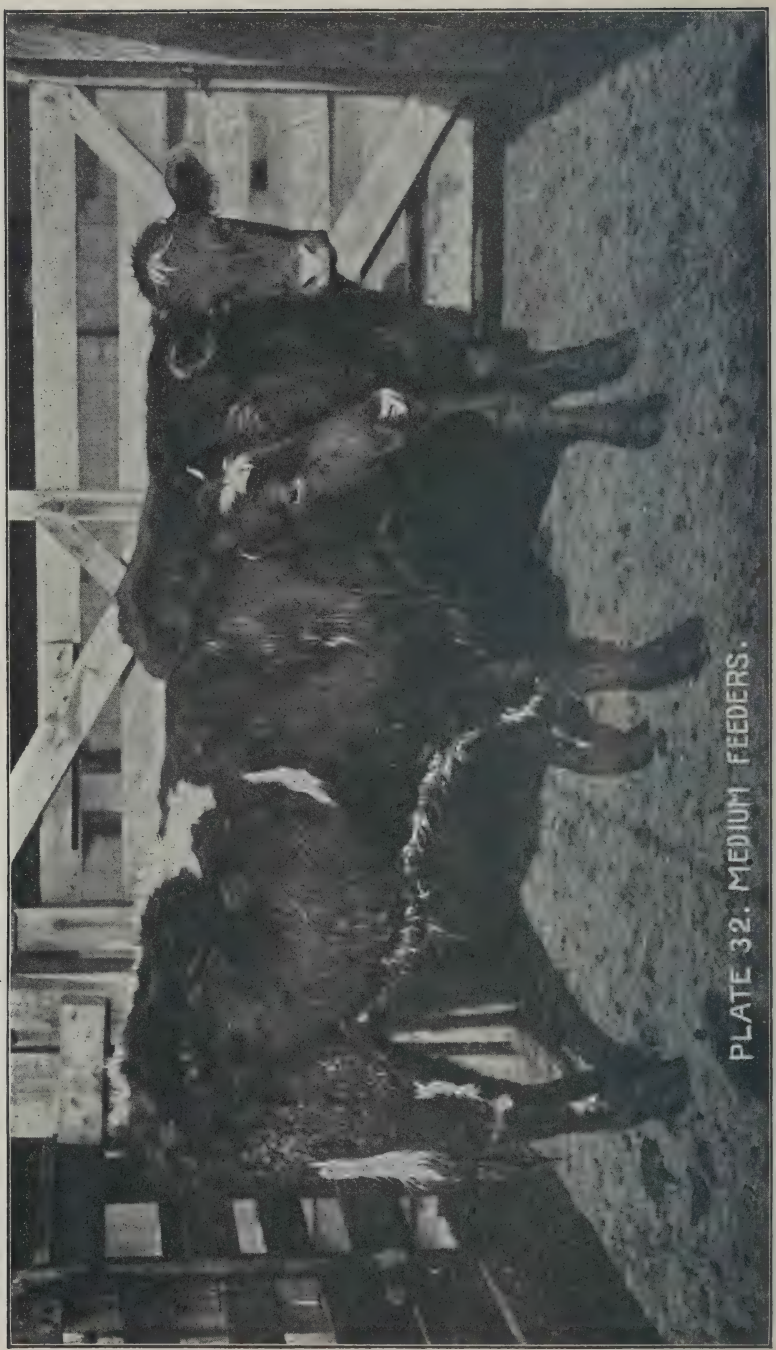

PLATE 32. MEDIUM FEEDERS.

PLATE 33.COMMON FEEDERS.

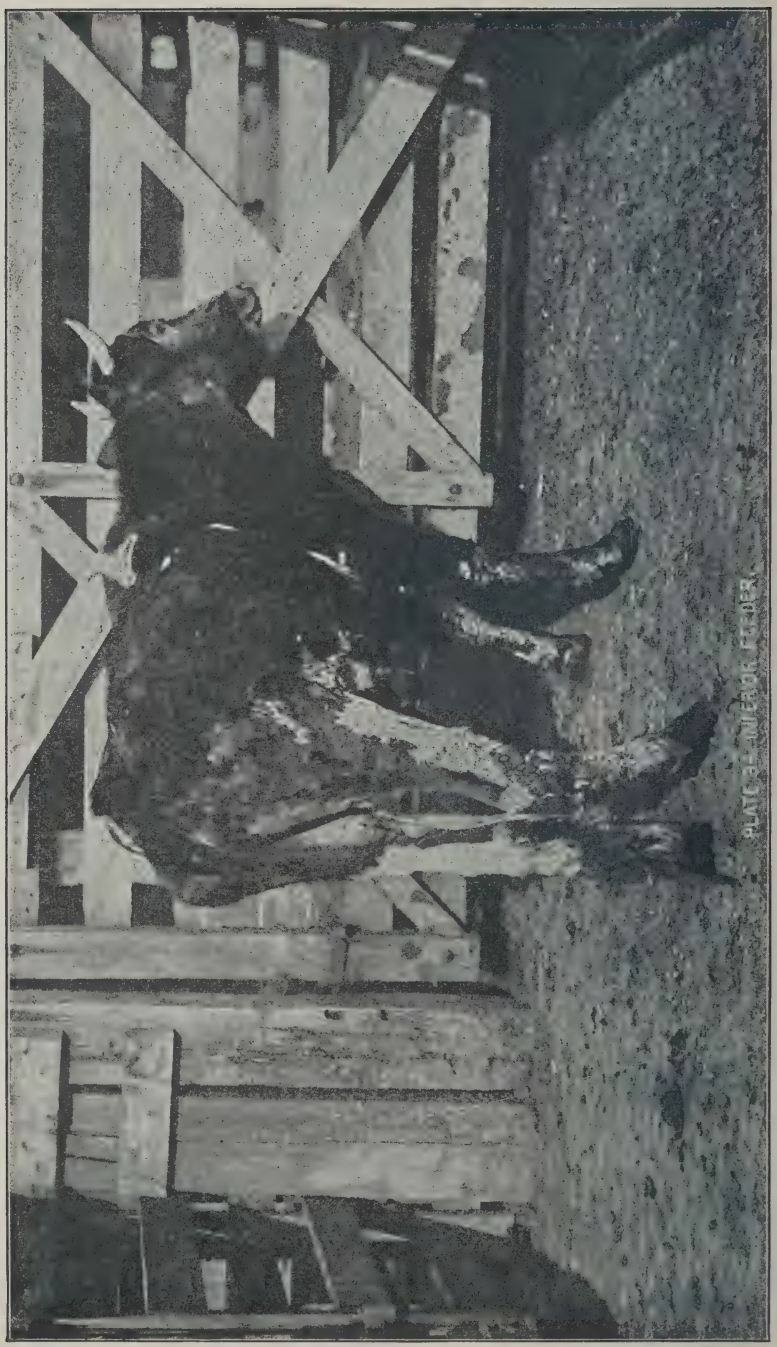
PLATE 2.—NIGERIAN FEEDER.

PLATE 30
FAIR GRADE YEARLING STOCKERS.

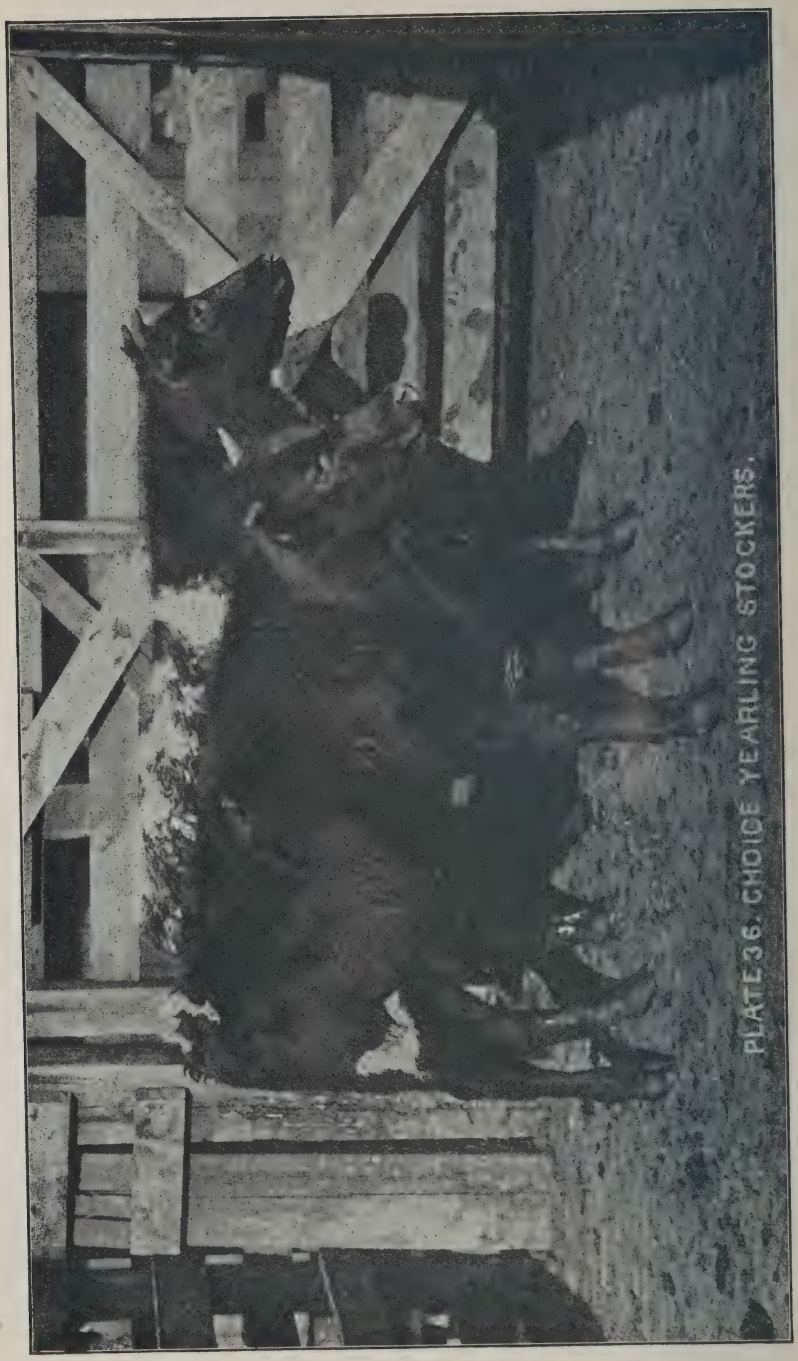

PLATE 36. CHOICE YEARLING STOCKERS.

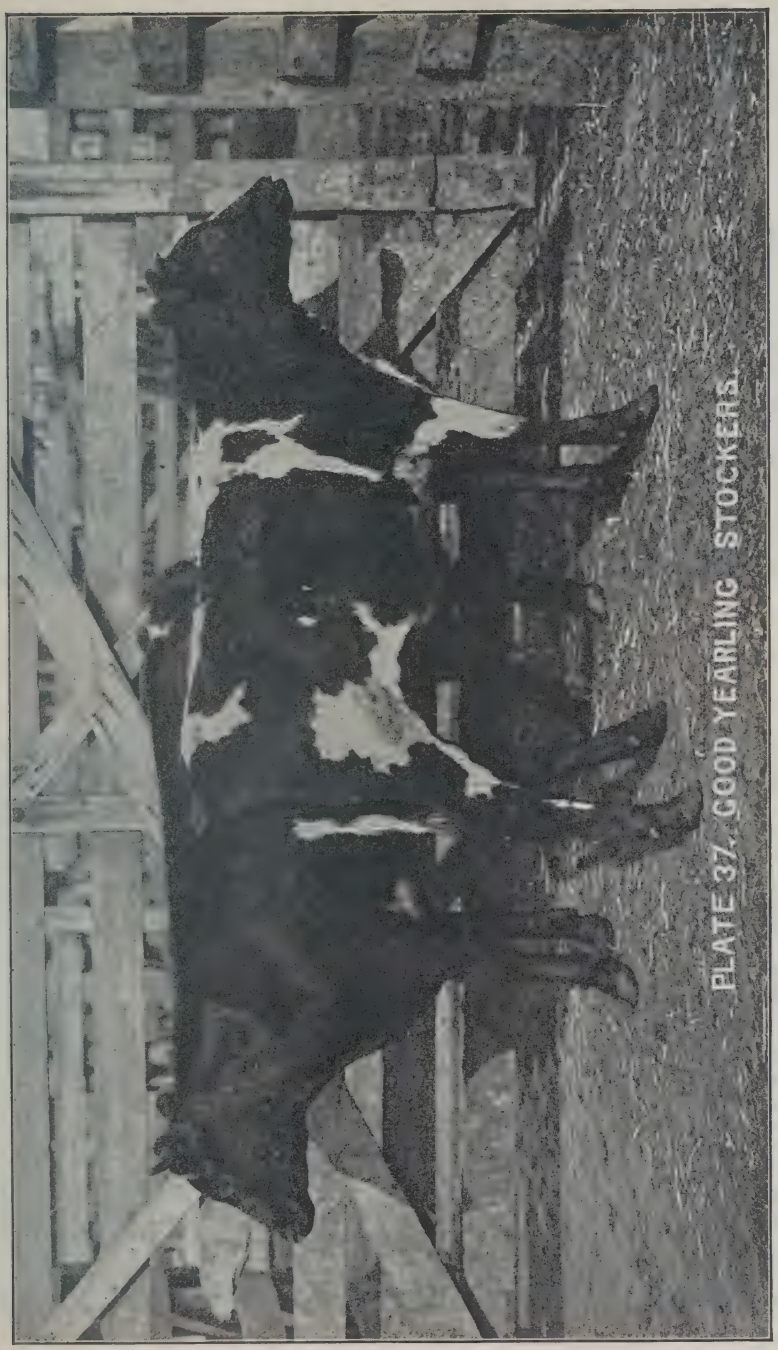

PLATE 37. GOOD YEARLING STOCKERS.

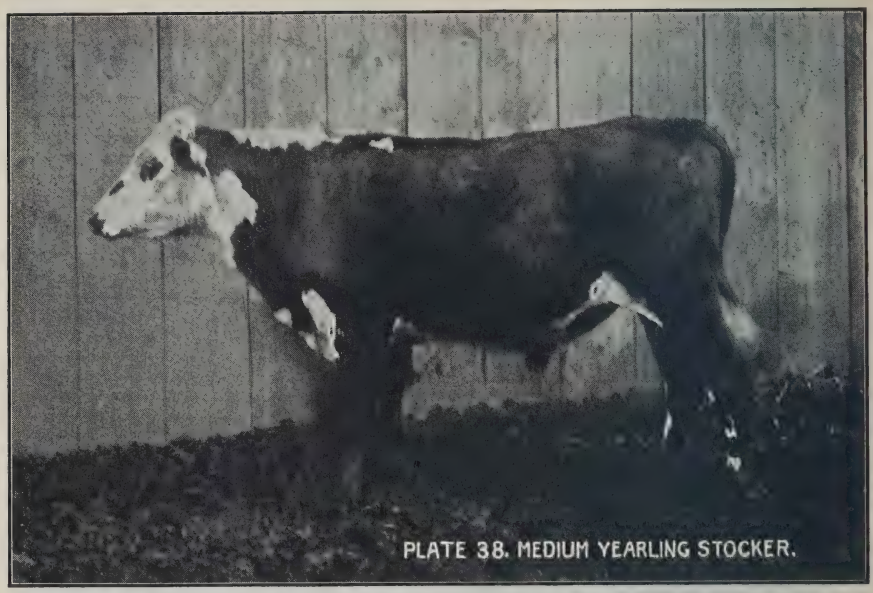

PLATE 38. MEDIUM YEARLING STOCKER.

PLATE 39. COMMON YEARLING STOCKER.

PLATE 40. INFERIOR YEARLING STOCKER.

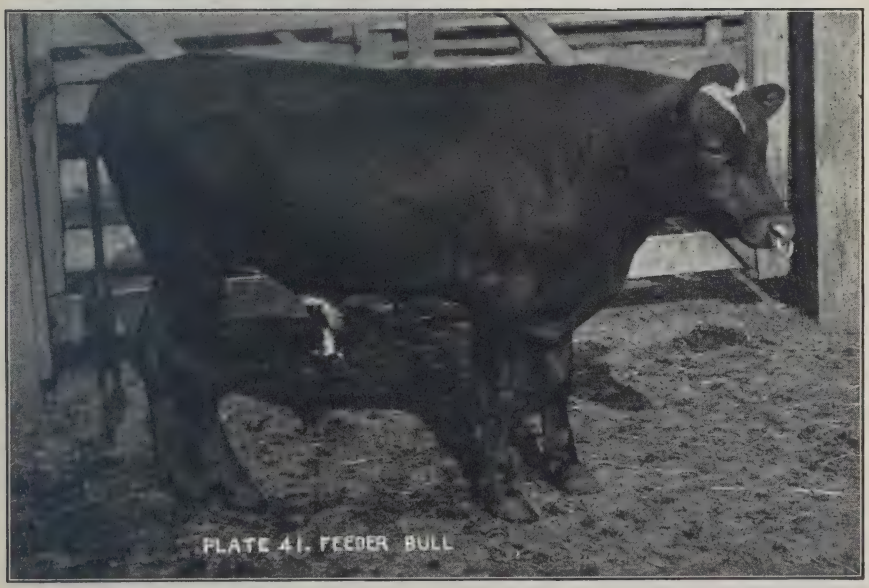

PLATE 41. FEEDER BULL

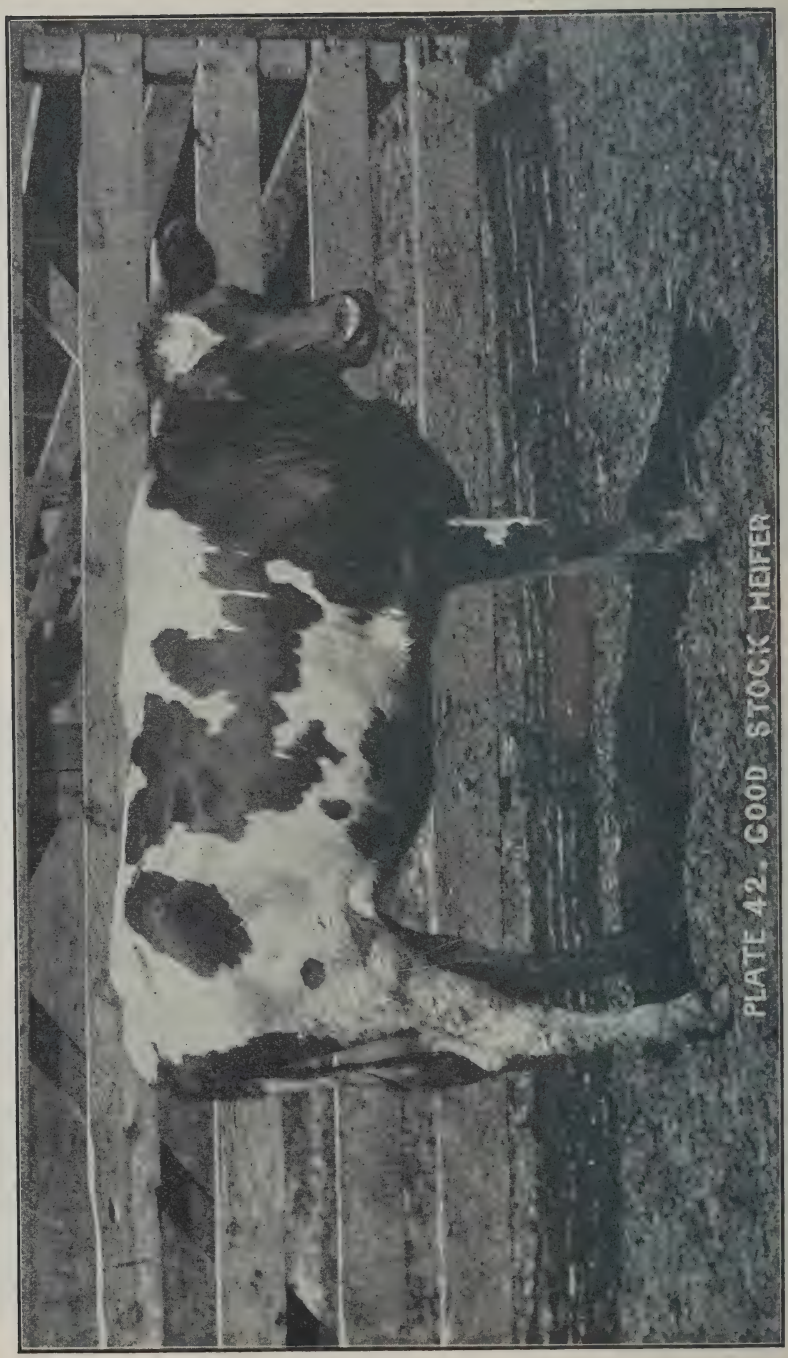

PLATE 42. GOOD STOCK HEIFER

PLATE 43. MEDIUM STOCK HEIFER.

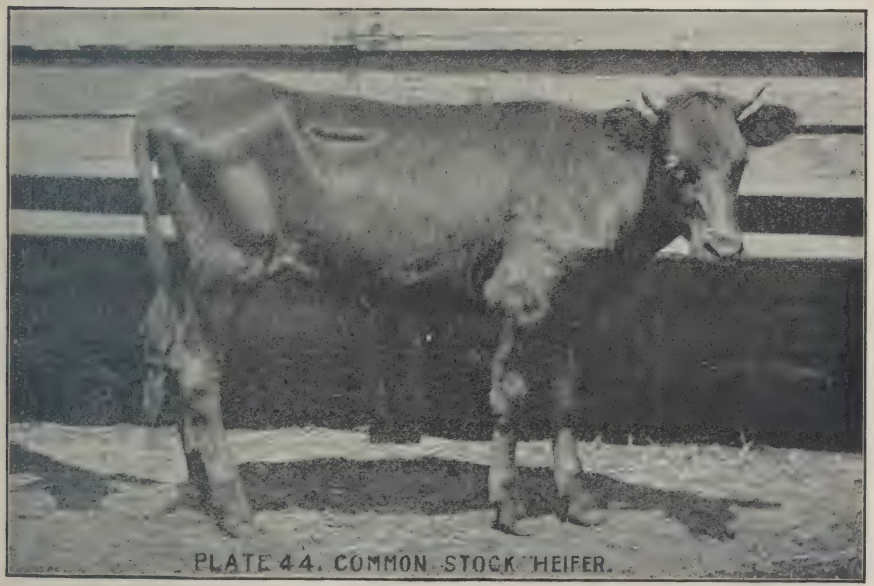

PLATE 44. COMMON STOCK HEIFER.

VEAL CALVES.

The most important factors to be considered in determining the grade to which a veal calf belongs are age, condition and weight. The weight does not matter so much as age and flesh, although desirable weight in the good and choice grades of veals is important. A veal either twenty-five pounds too light or too heavy may be sold at a reduced price when the same quality, age and flesh in a calf of desirable weight would sell as a choice veal. It is more difficult to distinguish breeding in young calves than in older cattle, and it is fortunate, therefore, that the breeding of veal is of little importance and that the main thing is to get fine finish on a young calf, say a weight of about 140 to 160 pounds, with faultless finish on an eight weeks' calf.

Veal calves are classified as follows:

Choice veals	120 to 160 lb.
Good veals	110 to 200 lb.
Medium veals	100 to 240 lb.
Common veals	80 to 300 lb.

CHOICE VEALS.

To be choice a calf must be fat, and strictly fancy. It must not lack in condition, or be either too young or too old, too light or too heavy. The most desirable weight is 150 pounds and the best age about seven weeks. Choice veals range in weight from 120 to 160 pounds, and in age from six to eight weeks. Plate 45.

GOOD VEALS.

The extreme range of the age and weight in good veals is somewhat wider than in choice ones, owing to the fact that since buyers can secure good veals at a lower price they are naturally less discriminating. Good calves vary in weight from 110 to 200 pounds and in age from six to ten weeks. A calf that might otherwise grade as choice but is a little advanced in age and of too strong weight would be classed as a good veal. A calf may be all right as to age and weight, but lack the fine finish or flesh necessary to be graded as choice.

Plate 46 shows a calf with plenty of flesh, but too much age and weight to be choice, still good enough to grade as good.

MEDIUM VEALS.

Medium veals may have the most desirable weights, namely, from 140 to 160 pounds, but too advanced in age for their weight and finish. They usually give evidence of being grown too slowly, owing to lack of proper or sufficient supply of milk, or else are too light in weight, having been sent forward before fully ripe. Then again, calves are often classed as medium because they have been held back too long, getting both too

much age and too much weight, although they may have faultless flesh and conformation. It should be said, however, that the bulk of medium calves are too light in weight and too young, rather than too old and too heavy. Medium veals have the same faults as good veals to a more marked degree. Such calves vary in weight from 100 to 240 pounds, and in age from five to twelve weeks. Plate 47.

COMMON VEALS.

All thin calves except those too old to be classed as veals are spoken of as common. When too old and heavy to be classed as veals they are sold either as stockers or as butcher stock, depending upon their condition. If advanced in age and thin enough to grade as common in condition they would grade as stock calves. Whether calves of such age and weight are used for veal or stock purposes will depend upon the demand for veals and stockers as well as the condition of the calves themselves. Plate 48.

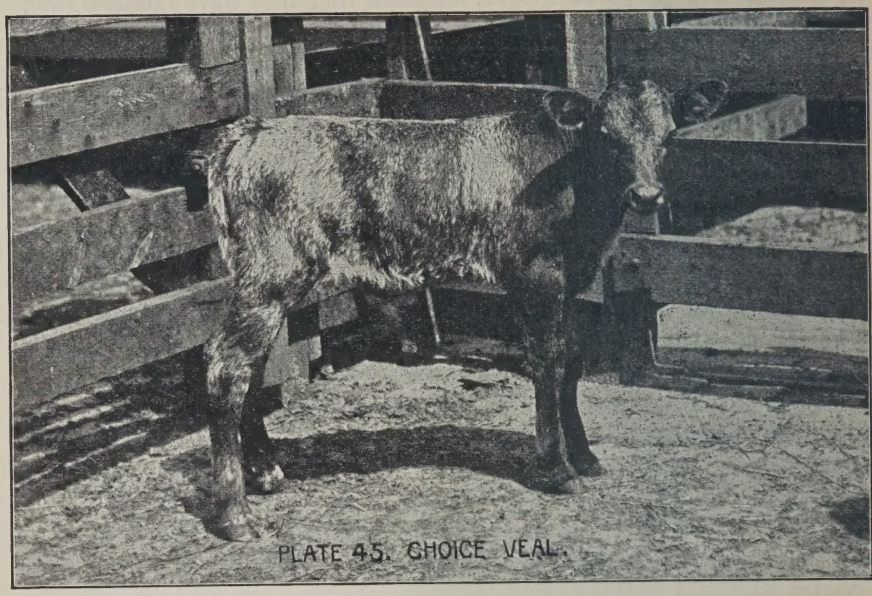

PLATE 45. CHOICE VEAL.

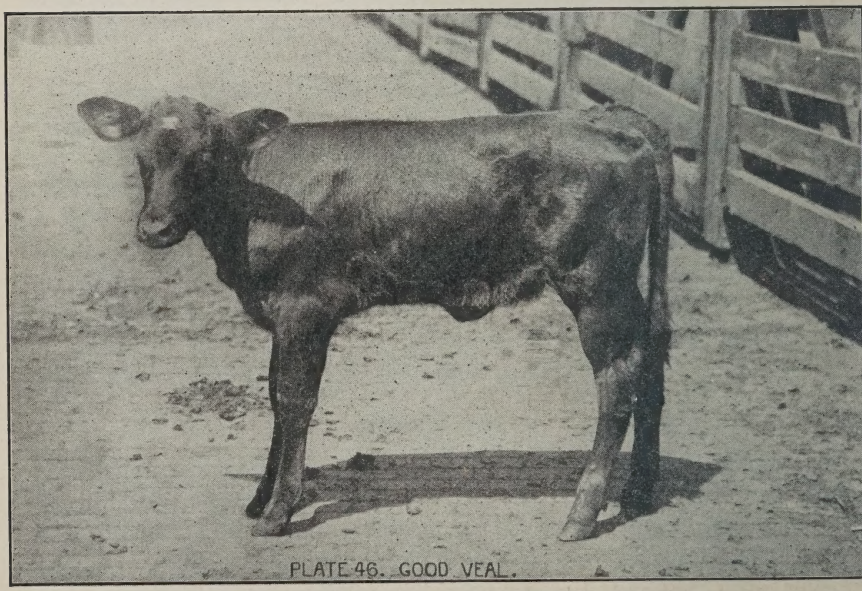

PLATE 46. GOOD VEAL.

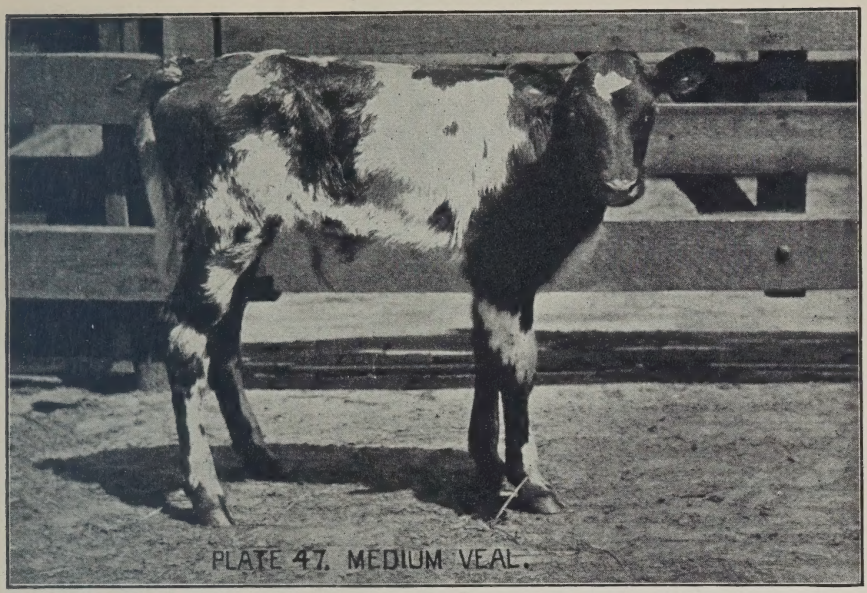

PLATE 47. MEDIUM VEAL.

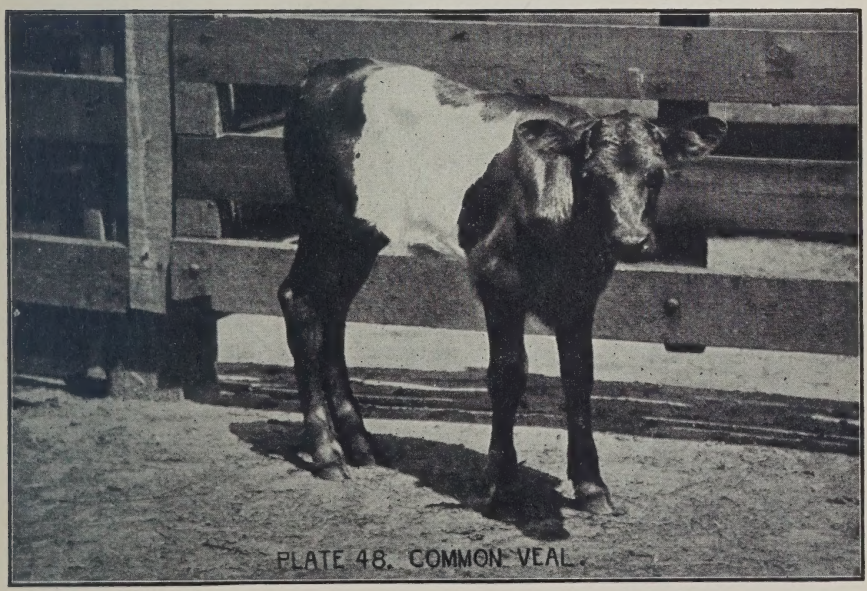

PLATE 48. COMMON VEAL.

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